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Bulletin
Georgia State College of Agriculture

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Announcement 1914-1915.

Register, Officers and Students
Session 1913-1914.

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UNIVERSITY OF ILLINOIS
AUG 23 1915
PRESIDENT'S OFFICE

Announcement

OF THE

Georgia State College of Agriculture

Athens, Georgia

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For the Session of 1914-1915
With a Register of Officers and Students
For the Session of
1913-1914

Issued May, 1914, as Volume 2, Number 10, of Bulletin
Georgia State College of Agriculture.

The University extends a cordial welcome to all educational, agricultural, commercial, manufacturing, financial and industrial bodies, and bodies of like character, having for their object the welfare of the state, to use on special occasions, free of rent, such public buildings of the University as the Chancellor and President of the Agricultural College may approve.

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CALENDAR 1914-1915

June 29, Monday:	Opening of the Summer School.
August 1, Saturday:	Close of the Summer School.
September 12:	Meeting of the Faculty.
September 14:	First day of Registration.
September 14-17:	Examinations for Entrance.
September 16:	Opening of the First Term.
November 26:	Thanksgiving Day.
December 23:	Close of the First Term.
January 4:	Opening of the Second Term.
January 4:	Opening of the Short Courses.
January 19:	Birthday of General R. E. Lee.
February 21:	Exercises in commemoration of the 114th Anniversary of the Demosthenian Society and the 95th Anniversary of the Phi Kappa Society.
February 22:	Washington's Birthday.
March 20:	Close of the Second Term.
March 22:	Opening of the Third Term.
May 20:	Last date for submission of Prize Essays.
June 7:	Meeting of the Board of Visitors.
June 10:	Annual Session of the Board of Trustees.
June 9-11:	Examinations for entrance.
June 12, Saturday:	8:30 P. M., Sophomore declamation contest.
June 13, Sunday:	11:00 A. M., Baccalaureate Sermon.
June 14, Monday:	10:30 A. M., Exercises of the undergraduates representing the branches of the University. 4:00 P. M., Military exercises and drill. 8:30 P. M., Champion debate between the Phi Kappa and Demosthenian Societies.
June 15, Tuesday:	10:30 A. M., Business meeting of the Alumni Society. 12 M., Oration before the Alumni Society. 4:30 P. M., Junior orations and delivery of Sophomore cup.
June 16, Wednesday:	Commencement Day. Close of the 115th annual session.

The State College of Agriculture

HISTORICAL STATEMENT.

The Georgia State College of Agriculture was organized in accordance with an act of the General Assembly of the State passed July 21, 1906. It is an outgrowth of the State College of Agriculture and Mechanic Arts established as a department of the University of Georgia on May 1, 1872, by the Trustees of the University who accepted for the purpose, funds arising from the landscript. From time to time support was received from the federal government, until the State, realizing that agriculture represents its principal industry, decided by legislative enactment to differentiate and specifically support an agricultural college.

The act of 1906 establishing the present College and better known as the "Conner Bill," contains the following preamble which sets forth reasons for enlarging the work of the State College of Agriculture along both educational and research lines:

"Agriculture is the principal industry of the State, and the main source from which the material prosperity of the State must come. Experience has demonstrated the great value of agricultural education in permanently improving the soil, multiplying its yield and increasing the value of its products. There is a growing demand by the people of the State for agricultural education, and for the practical benefits of scientific research in this line, and for improved methods in farming."

This act provides that the State College of Agriculture shall be under the direction of a Board of Trustees, consisting of eleven men, three selected from the trustees of the University proper, three from the directors of the Georgia Experiment Station, including the Commissioner of Agriculture, and five from the State at large. The Board has the same functions and exercises the same authority as that of the trustees of similarly organized and coördinated divisions of the University, but is subject, in accordance with the provisions of the constitution of the State, to the general control of the University trustees.

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OF THE UNIVERSITY OF GEORGIA.

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*In Extension service.

‡*In Coöperation with U. S. D. A.

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‡*JAMES E. DOWNING, In Charge of Pig Clubs.
‡*ELIZABETH G. HOLT, In Charge of Girls' Clubs.
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*In Extension service.
‡*In Coöperation with U. S. D. A.

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FRANK CRAWLEY WARD, Assistant Botany.
CADESMAN POPE, Student Assistant Civil Engineering.
FRANK OLIVER MILLER, Student Assistant Civil Engineering.
CHARLES HOLMES STONE, Student Assistant in Drawing.

GENERAL STATEMENT

The Georgia State College of Agriculture constitutes an integral part of the University System of Georgia, and while it has certain buildings, lands and equipment set aside for the special use of its corps of instructors and students, its work in general is closely associated with the University proper, so that agricultural students enjoy all the advantages which a great university system affords. These advantages include instruction and advice from the professors in other colleges, use of the general libraries and scientific laboratories, and membership in the various class and society organizations. This is most desirable, since class-room training is but a part of a man's education.

OBJECTS OF THE COLLEGE.

The purpose and plan of the College of Agriculture are, first to train agricultural students in the sciences pertaining to correct farm practice that they may receive a thorough and liberal education; second, to so arrange the course of instruction that men of limited means, opportunity and education may receive the greatest practical benefit by attending courses of varying length provided by the College; third, to take an active part in the dissemination of agricultural knowledge among the farmers of the State by means of extension teaching, farmers' institutes, and bulletins and publications of a popular and practical nature.

THE AGRICULTURAL HALL.

The Agricultural Hall was dedicated January 18, 1909, with appropriate ceremonies. The building is 264 feet long, 72 feet wide, three stories high. It is constructed of cream-colored pressed brick, Bedford lime stone for the foundation, terra cotta trimmings in designs symbolical of the purposes of the building, eaves wide and roof of red tile. The structure contains 60,000 square feet of floor space, has sixty large rooms, comprising administrative offices, department offices, private laboratories, library, class laboratories for the departments of agronomy, animal husbandry, dairy husbandry, cotton industry, horticulture, farm mechanics, veterinary medicine, bacteriology, entomology, agricultural chemistry; class room and quarters for extension work, for farm demonstration work, boys' corn and pig clubs, girls' canning and poultry clubs, and an auditorium with a seating capacity of 400.

The building is heated by steam, lighted by electricity, is kept comfortable, clean and sanitary. Shower baths and lockers are provided for students whose laboratory work in shop or field require this convenience.

CAMPUS OF COLLEGE OF AGRICULTURE.

The campus of the College of Agriculture is situated about half a mile south of the administrative building of the University of Georgia. The Agricultural Hall occupies a commanding position upon the brow of a hill, the surrounding grounds presenting unusual advantages for landscape gardening and the making of a beautiful campus. Model roads and walks are being perfected, trees and shrubs have been planted to supplement those nature has already provided, and the art of landscape gardening is being applied as means and time will admit.

AGRICULTURAL LIBRARY.

The library and reading room occupy large, well lighted rooms on the main floor of Agricultural Hall. A good, modern agricultural library has been established, consisting not only of important books recently issued, but a practically complete set of bulletins, appertaining to agricultural subjects, of all the states and departments of the Federal government; encyclopedias, herd and flock books, and bound volumes of leading publications.

About one hundred publications including the leading agricultural journals of this and foreign countries; scientific and trade papers bearing upon agriculture, a few popular magazines and leading daily and weekly papers of the state, are placed in the reading room for use of the students.

The library is open for use of students from 9 a.m. till 6 p. m. on week days, and books not on the reserve shelves, may be borrowed for a period of two weeks.

AGRICULTURAL LABORATORIES

Since the success of instruction in agriculture depends largely upon the thoroughness and efficiency of laboratory training, the equipment of an institution in this respect is important. Below will be found a brief description of these laboratories.

AGRONOMY LABORATORY.

Three laboratories in the east end of the main building are used by the department of agronomy. The soil laboratory is completely equipped with soil tubes, shakers, centrifuges, water baths, ovens, distillation apparatus, scales, etc. This laboratory is used in a series of experiments to give the student a knowledge of the physical and mechanical qualities of various types of Georgia soils.

The cereal laboratory is used for the study of farm crops, including seed testing and cereal judging. Laboratory tables, seed racks, seed testing apparatus, seives, magnifiers, microscopes and wall cases containing specimens, constitute the main equipment of the laboratory.

The cotton industry laboratory is equipped to teach students how to distinguish the varieties, how to grade, how to make close physiological study of the fibre under the compound miscroscope and how to meet some of the milling problems of fibre through breeding, etc. Varieties are combed and mounted, individual merits ascertained, the breaking strength of varieties determined, etc.

ANIMAL HUSBANDRY LABORATORIES.

About seven thousand square feet space in the basement of Agricultural Hall, is set aside for laboratory work in theoretical and practical instruction in dairying. In the butter making laboratory are various makes of separators, both hand and power which the students are required to set up and operate, thus giving them a first hand knowledge of the type best suited to their farm needs. The laboratory has been equipped with reference to the home dairy rather than a creamery. The milk testing laboratory is a large, well lighted room in which several models of Babcock testers are used. Various methods are used for determining the lactic acid content of milk. Facilities are also provided for determining the solids not fat, as well as how to make curd tests.

A pasteurizing laboratory in which students are taught how to meet the highest sanitary requirements as well as how to prepare

dairy products for storage and long shipment, is provided. Refrigerating facilities in which temperature requirements are met in ripening, storing and holding of different dairy products, are afforded for laboratory work of this nature.

Students are provided herd books and taught how to trace pedigrees as well as the use of forms for tabulating and keeping them. Various breeds of live stock on the farm are used for stock judging, breeding and feeding experiments.

HORTICULTURAL LABORATORIES.

The department of horticulture has three laboratories. A student laboratory and a private laboratory are in the Agricultural Hall, and the third, a spraying laboratory on the horticultural grounds, situated about 400 yards southeast of the main building.

The students' laboratory is equipped with various models, miscroscopes, samples of horticultural tools, etc. The private laboratory contains a culture room, fume hoods and other essential fixtures for research work in horticulture. Between the two laboratories is the office with vault apartment for records. A barn, tool shed and spray house constitute a part of the equipment for students' field work.

Greenhouses. The College greenhouses consist of three houses each 75 feet long, and 25 feet wide, divided into seven compartments so that practical, experimental and class work can be carried on in them at the same time. The structures are semi-steel, the three being connected with a metal-lathe concrete work room. The plans for the development of the greenhouse plant provide that the present unit shall constitute only a wing of the future structure.

FARM MECHANICS LABORATORIES.

The Farm Mechanics Laboratories are located in the east portion of the lower floor of the main building and in the Farm Mechanics building.

The laboratory room in the main building is 33x70 feet and is used for drawing and surveying, being equipped with 50 drawing tables with parallel attachments, print frames, etc. Besides being used for student instruction, this laboratory is also used for making blue print drawings of barns and farm buildings in general.

The surveying equipment is sufficient to put ten parties in the field and consists of five Bustrom and Brady farm levels and compass combination instruments, and five Keuffel and Esser combination farm transits, convertible engineering level, nine plane tables, transit for advanced work and all other necessary surveying accessories.

Farm Machinery Laboratory. The farm machinery laboratory is located in the Farm Mechanics building, occupying the whole of the second story. A full line of modern farm machinery is on display and is used for student work. Pumps, hydraulic ram, windmill and gasoline engines illustrating different forms of water supply. Acetylene and its adaptability for lighting, heating and cooking on the farm, is demonstrated. Plumbing appliances required on the farm, constitute a part of the equipment.

Forge Shop. The forge shop is located on the ground floor of the Farm Mechanics building, is equipped with twelve latest models heavy cast iron forges with coal and water boxes and a full line of tools. The blast and exhaust of the forges are produced by fans electrically driven. Vises, drills, emery wheel, polishers, grinders, etc., are provided.

Wood Shop. The wood shop is also located on the ground floor of the Farm Mechanics building, occupying the same amount of space as the forge shop. The equipment consists of benches, planer, matcher, rip and cut-off saw, turning lathe, and a full set of tools and attachments for each bench.

Display and Assembling Rooms. Between the wood shop and forge shops is the display, assembling, supply, and tool room. Besides providing racks for tools for both the forge and wood shops, the room is used by the students for putting together furniture and for the display of models for farm buildings, silos, etc.

VETERINARY SCIENCE LABORATORIES.

The laboratories of this department occupy a portion of the main floor of Agricultural Hall and consist of three main rooms with storage room connections. The histological and pathological laboratory is furnished with biological desks, microscopes and other instruments and accessories necessary to the work. A wall cabinet contains specimens and models of diseased organs and parts. Surgical instruments and cabinet furnish a part of the equipment of the laboratory.

A small room is fitted up as a pharmacy with complete line of veterinary drugs and medicines together with percolaters, filters, mortars, pestles, scales, pill tiles, a case of two hundred crude drugs, etc., for use in the study of Materia Medica and Pharmacy.

The bacteriological laboratory for the study of disease producing germs is equipped with biological desks, high-power microscopes, microscopic slides, cabinets, steam and hot air sterilizers, incubator, culture media and all necessary accessories. A specially constructed, inside room adjoins this laboratory, used for incubation purposes and is fully equipped.

Skeletons, models and charts of farm animals are available for study of anatomy, aside from opportunities furnished by carcasses of animals at the hospital.

Veterinary Hospital. The veterinary hospital is provided with box stalls for sick animals, bath stall, clinic room, operating room, dissecting room, office and dispensary, and room for attendant. A complete equipment of hopples, side lines, slings, casting harness, dental, operating and obstetrical instruments and appliances. Clinics at which sick or injured animals are treated free of charge, are held at stated periods during the school year. Students are trained in the diagnosis and treatment of diseased animals, required to prepare and administer medicines by various methods, take proper care, and maintain correct hygienic conditions. Score cards are used for examinations of animals for diseases, unsoundness and blemishes.

The dissecting room is used during the colder months for the study of anatomy and physiology, students being required to dissect and study various parts of farm animals, and observe the location of internal organs, the principal blood vessels, nerves and other structures.

Hog cholera serum is manufactured at the hospital and affords frequent opportunities for autopsies of hogs, and, therefore, a study of contagious and parasitic diseases.

Hog Cholera Serum. The General Assembly of Georgia made an appropriation in 1911 for manufacturing Dorset-Niles hog cholera serum and continues to maintain the work, employing the veterinary department of the College to this end, that students may be better instructed concerning swine diseases and the manufacture and administration of the cholera serum. The serum is manufactured and supplied at cost to owners of swine through the office of the State Veterinarian at the State capitol. The serum plant was enlarged in 1912 to meet the increased demand, a modern, sanitary hog house sufficient to house 60 hogs, being added.

AGRICULTURAL CHEMISTRY LABORATORIES.

The courses of instruction offered in this department are designed to prepare students for practical work. Well equipped laboratories are necessary that this may be done.

The laboratories occupy the west end of the top floor of the College building, the main laboratory being well ventilated and lighted from three sides. These laboratories are well equipped with new and modern desks, hoods, tables for microscopic work, and apparatus accommodating sixty to seventy-five students. Adjoining the main laboratory is a well-lighted balance room equipped with accurate balances.

Adjoining the instructor's office is a private laboratory separated from the main laboratory by the store-room which opens into both laboratories. This laboratory is equipped for the analysis of soils, feeds, fertilizers, waters, etc.

Each desk in the laboratory is supplied with gas, water and sinks. Ample facilities are offered for students to specialize in the different branches of analytical work, such as soils, feeds and other agricultural products.

A laboratory has been equipped with modern apparatus for the analyses of the soil types of the State. The department is conducting a soil survey of the State in coöperation with the Bureau of Soils. All types in the several counties surveyed are collected and sent to the laboratory for chemical analyses.

THE COLLEGE FARM.

Contiguous to the grounds of the main building and extending southward for more than a mile, lies the College farm, consisting of 830 acres. The land is of varied character as to physical condition, types of soil and fertility. Some of it is rough and broken, a part fairly level, and a portion well wooded. This diversity admits of tests applicable to types of soils and conditions found in many sections of the State and is, therefore, an advantage.

Previous to being taken over by the College, the land had been rented and handled in a careless manner. No crop rotation system had been followed, very little livestock had been kept, and as a result the land was eroded in many places and was very generally in poor physical condition. This condition is not unlike that of a vast acreage in Georgia, and it has been of advantage in affording a basis of practical instruction in soil building by crop rotation, the use of legumes, growing live stock, terracing, etc.

The farm has been surveyed and mapped with a view to the construction of roads, bridges, walks, additional buildings, for convenience and beauty, as funds become available. A survey has also been made of the soil types and their physical characteristics have been determined.

College Barns. As funds have become available the College has erected plain, but substantial barns after plans drawn by the Farm Mechanics Department. Their low cost and general utility have made them popular among farmers. The College is combining its general stock barn and dairy barn which heretofore have been separate pending the acquirement of sufficient funds to develop this more economical plan. When completed the barns for dairy and general live stock will consist of one large hay and grain barn with two stall extensions, modernly equipped for economical feeding and sanitary

housing of cattle and horses, the dairy portion being completely equipped for the most careful and scientific handling of the products of the herd.

Two silos, one with a capacity of 150 tons and another of 200 ton capacity are used at this barn.

The Department of Agronomy has two barns for storage and laboratory work located on the experimental plats. These are completely equipped for the purpose. The Horticultural Department has a barn on the horticultural grounds, new and well equipped. These and the tool sheds, bull houses, paddocks for young stock, dipping vats for hogs and cattle constitute in the main, the barn facilities of the College.

LIVE STOCK.

Dairy Herd. With a small beginning commensurate with the sum available for the purpose, the College began in 1907 to establish its dairy herd, and has increased it from 17 to 40 Jerseys and from 0 to 27 Holsteins. A pure bred bull of each breed is owned. Of the Jerseys 18 are pure bred and of the Holsteins 14 are pure bred. Some high producing cows have been developed and the production and profits per cow has been materially increased.

Beef Herd. A Hereford herd of 54 head is being pastured during grazing season on a portion of the College farm which had been abandoned for crop purposes because of its eroded and depleted condition. A valuable object lesson is thus being afforded as to how to utilize waste lands and reclaim for crops. An object lesson is also being afforded the students of how good beef types can be developed with native cows by use of a pure bred sire. Short Horns are being added to the herds, a beginning having been made during the past year.

Hog Herd. Tamworths and Berkshires are being bred on the College farm as representatives of the extreme types of bacon and lard producing animals. Offsprings of these animals are being widely distributed in the State for breeding purposes.

Work Stock. Percherons for draft stock are being emphasized at the College. Two registered mares are now owned by the College as well as a registered stallion and some grade mares. This kind of farm power equipment is being added as fast as means will admit. Various types of mules are also used. The College has in all 21 head of draft stock.

Horse Breeding. Aside from the registered Percheron mares and the pure bred stallion, and excellent grade mares as a foundation for breeding work on the farm, the College has been able to interest various communities in the State in buying Percheron mares

and stallions. When funds are obtained, quite extensive plans will be put in force for assisting the farmers of the State to get better breeds of not only horses but of beef and dairy cattle.

THE DEMONSTRATION FIELD.

A field of twenty acres has been set aside for experimental work. This area of land has been subdivided into more than 1,000 plats, ranging in size from $\frac{1}{50}$ to $\frac{1}{10}$ of an acre. Through the medium of this experimental field, nature is constantly being asked questions, and new facts of interest are being brought to light by actual field tests; the value of principles and theories developed through laboratory research is determined, and thus the education of the student is made more complete, since he not only receives instruction in theory in the class-room, but has the underlying scientific principles fully demonstrated to him in the laboratory, and sees the actual results which follow the application of these principles in farm practice.

Much attention is given in the demonstration field to the development of strains of cotton, corn and other farm crops into better kinds than those ordinarily grown. The relation of fertilizers to crop production, the influence of various methods of cultivation, the value of crop rotations, and the merits of new and interesting varieties of farm crops are fully tested, and not only made a part of the knowledge of the student, but the results are distributed free of cost to the farmers of the state.

In connection with the Department of Cotton Industry, special plats are set aside for conducting experiments in cotton breeding, both by selection and hybridization, and students are given opportunity to see the results of their own experiments. A test of all the leading varieties of cotton is also conducted. During the growing and harvesting seasons, students are required to write full descriptions of varieties, and be able to distinguish one from another.

ORCHARDS AND GARDENS.

About thirty-five acres of the College farm have been set aside for horticultural purposes. The land is rolling, and, with the exception of one or two acres of sand, which will serve well for truck crops, the soil is red clay. The field has been plotted and a variety orchard planted, in which all the varieties of apples, pears, peaches, plums and other fruits recommended for this section are well represented, so that a comparative study of their qualities can be made. As rapidly as funds will permit, a truck garden is being developed, experimental plats laid out, and a commercial orchard started. A plantation of small fruits is already well established. For the ben-

efit of the fruit growers at large, the horticultural grounds will serve as a testing field for all new varieties, and also as a laboratory for experiment in and demononstrations of all practices of orchard and garden management for the benefit of the student.

THE AGRICULTURAL CLUB.

The students of the College have an organization of their own, known as the Agricultural Club, which meets every week. The purpose of the society is to obtain drill in parliamentary practice, and in declamation and debate, as well as to discuss the scientific and practical phases of many important agricultural problems. The club publishes the "Agricultural Quarterly," which is not only distributed among the students, but is circulated over the state. This publication forms a desirable medium of communication between students and farmers, and furnishes useful literary training to students.

HORTICULTURAL CLUB.

The students interested in horticulture have a club which meets semi-monthly for the discussion of live problems in that field of agriculture. At the 1912 meeting of the State Horticultural Society the student members of the College Horticultural Society were rated active members of the state organization upon the payment of one-fourth of the annual dues of the state society.

FEES AND EXPENSES

Attention is called to the remarkably low cost of a full collegiate year in the College. By rooming in the dormitories, a young man can live at the University almost as cheaply as at home.

The expenses are as follows:

Room rent in College dormitories, $2.50 per month; this includes electric lights, heavy furniture and care of room. The students provide fuel, mattress, bed furnishings and toilet articles. Board in Denmark Dining Hall costs about $10.00 a month on the coöperative plan. Room rent and board are paid monthly. Furnished rooms in private families may be secured at $3.00, $5.00 or more per month for each occupant.

Laundry will cost about $1.25 a month, and books about $10.00 a year. All students are required to join one of the literary societies, the initiation fee being $2.00.

Uniform for the military department will cost about $20.00. This will last two or three years.

In short, the necessary expenses of a student for the college year of nine months, need not exceed $175.00 to $200.00.

Expenses for short term students are in proportion to those for long course students. The cost of attending the Short Courses will vary from $15.00 to $25.00, depending on railroad fare.

AGRICULTURAL PUBLICATIONS.

A number of popular bulletins are issued each year for distribution among the farmers of the state, giving information which the farmer seems to be most in need of at the time. They are not technical but convey in popular language the results of experiments carried on at the College, or acquired from other reliable sources. Special stress is being given in these bulletins to providing the Georgia farmer with the information he is now seeking to enable him to diversify his farming and abandon the policy of a single crop.

A press service is conducted by an editor of the College. This amounts to about 200 columns of reading matter per week. Practically all of the dailies and weeklies of the state use it. The weekly papers are provided a free plate service, or plates of prepared type.

In the two ways mentioned the College is reaching the bulk of reading farmers in the state with timely agricultural information, on an average of once a week during the school session.

LIST OF PRIZES FOR COLLEGE STUDENTS

Junior Scholarship—$50.00 in gold given by the Virginia-Carolina Chemical Company to the student showing the greatest proficiency in all agricultural subjects for the college year 1913-'14.

Sophomore Scholarship—$40.00 in gold given by the Virginia-Carolina Chemical Company to the student showing the greatest proficiency in all agricultural subjects for the college year 1913-'14.

Freshman Scholarship—$25.00 in gold given by the Virginia-Carolina Chemical Company to the student showing the greatest proficiency in all agricultural subjects for the college year 1913-'14.

One Year Agricultural Course—$25.00 in gold given by the Virginia-Carolina Chemical Company to the student showing the greatest proficiency in all agricultural subjects for the college year 1913-'14.

Trustee Prizes—$25.00 in gold from the board of trustees to the student writing the best essay on "The influence of the passing of the Smith-Lever Bill on Agricultural Progress."

Fifteen dollars in gold in two prizes of $10.00 and $5.00, given by the American Coal Products Company, for the best essay on "Sulphate of Ammonia as an Economic Source of Nitrogen and its use in Agriculture."

Twenty-five dollars in gold given by the Virginia-Carolina Chemical Company for the best essay on "Factors that Increase the Efficiency of Fertilizers."

H. G. Hastings Prize—Ten dollars in gold given by H. G. Hastings & Company, Atlanta, Ga., for the best essay on "Requirements for Corn Improvement for Georgia."

Separator given by the DeLaval Separator Company, New York, N. Y., to the student showing the greatest proficiency in dairy work.

$25.00 to be given by the Cotton Seed Crushers Association of Georgia for the best essay on "The Relation of Cotton Seed and its By-Products to the Live Stock Industry of the South."

SCHOLARSHIPS.

Two scholarships valued at $250 each given by the Southern Railway Company.

One scholarship valued at $250.00, given by H. G. Hastings and Company, Atlanta, Ga.

One scholarship valued at $100.00, given by Hon. Gordon Lee.

One hundred and six scholarships for corn club boys short course were given in 1913 and it is estimated that about 200 will be given in 1914.

Twenty-six scholarships for the girls club short course were given in 1913 and more will be offered in 1914.

TERMS OF ADMISSION.

Students must be 16 years of age.

Four-year Degree Course: Admission to the four-year degree course requires 14 units. A student can enter, however, conditioned in 2 units, provided he is a graduate of a school that does not give full 14 units. Certificates will not be accepted for 12 units from those schools that require 14 units for graduation.

Required Subjects.

English, 3,	Geometry, 1,
Algebra, 1½,	History, 2,

Foreign Language, 2 units.

Not more than 6½ units can be selected from the following: Solid Geometry, ½; Agriculture, 3; Physical Geography, 1;* Drawing, 1; Physics, 1; Physiology, ½; Botany, 1; Zoölogy, 1; Chemistry, 1; *Manual Training, 2; *Commercial subjects, (Typewriting, Shorthand, etc.), 2; Additional—History, Mathematics, English, or Foreign Language, each 1.

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*Not more than three units will be allowed on freehand drawing, manual training and commercial subjects.

Only one conditioned unit will be allowed in a required subject, with the exception of foreign language, where two will be allowed. Upon entrance, conditioned students must submit plan to the president showing how they will make up these conditions. If at the beginning of the sophomore year these conditions are not removed, the head of the College will designate certain courses to be taken for their removal.

After a student has taken a college course in a subject, he cannot stand entrance examination on that subject to remove conditions, except for required subjects.

A certificate cannot be corrected after the beginning of the second term. Entrance examinations will be held at Athens and throughout the state on June 11th, 12th and 13th, and September 15th, 16th, 17th and 18th.

Summary of Work Required to Secure Above Units.

A study of English Grammar, Rhetoric, and a number of English Classics, as Shakespeare, Milton, Tennyson.

A study of Arithmetic, High School Algebra and Plane Geometry.

A study of two of the following history groups: Ancient History, English History, American History and Civics, Modern History.

A study of a foreign language. Any foreign language can be offered, but in case the student is conditioned he will be expected to take either German or French.

For further information ask for special bulletin on entrance requirements.

A unit's credit will be given for work in Physical Geography, Physics, Botany, Chemistry, Physiology, and ½ unit in Zoölogy, where the work has covered a standard text and laboratory work.

One unit will be given for work in general agriculture, and one unit each in Agronomy, Animal Husbandry, and Horticulture. In each case the student must have had the required laboratory work.

Drawings must be presented by the students who wish credit in either free hand or mechanical drawing or in the combination of the two, for one unit.

Students having finished approved courses in both wood and forge work that has covered a year's work of five periods a week of 1½ hours each, are entitled to two units, or one unit for either.

An approved course in Bookkeeping, Shorthand, and Typewriting will be accepted as 1 unit. Double periods required.

For further information in regard to entrance send for special bulletin.

One-Year Course. Students 18 years of age who have had at least three months actual farm experience are admitted to this course without examination, at the discretion of the executive officer of the College. Students should bring with them evidence of their farm

experience, otherwise they will have to be examined on this point. They must, of course, have a good common school education in order to benefit by the instruction provided, and must be diligent and faithful in the prosecution of their studies. These students are not candidates for degrees.

SPECIAL COURSE IN COTTON INDUSTRY.

The course in Cotton Industry is designed to meet the special needs of a cotton-growing section. Students who desire to specialize in the work will have the opportunity of electing any of the courses of instruction, provided they select from allied subjects a sufficient amount of work to meet the University requirements. A special course of 30 days is offered in July to all who desire to specialize in cotton grading and related subjects. Special railroad rates will be in force on account of the University of Georgia Summer School in July. Work can be taken in cotton grading and also in some other Summer School course.

FARMERS' ANNUAL CONFERENCE.

"Farmers' Week" at the College in January is designed to bring the farmers and their wives into closer touch with the work of the College, afford a better conception of the work which the institution is offering their sons and at the same time afford opportunity to acquire information for profitable application on their farms. This "open week" occurs during sessions of the Short Course for men, Short courses for boys and girls who have proven winners in corn and canning club work, and during the annual meetings of the Georgia Dairy and Live Stock Association, the Georgia State Horticultural Society and the Georgia Breeders' Associations.

SELF-HELP.

It is the purpose of the College to encourage students to work as much of their time as possible, for both economic and practical reasons. In this way the cost to the student may be reduced considerably, and his knowledge of how to apply scientific principles in farm practice may be materially broadened. It is both important and necessary that labor with the hands should be recognized as honorable and essential to the welfare of an agricultural people.

Students in the College of Agriculture have the same opportunities of securing help from the Charles McDonald Brown Scholarship Fund as those in other departments of the University at Athens. The interest on this fund is lent to worthy young men on condition that they obligate themselves to return it with four per cent. interest. Applications for scholarship should be made to the Chancellor

of the University. A special circular of information concerning the fund and blank forms of application will be supplied on request. This fund makes it possible for many young men of limited means to secure an education.

COURSES OF INSTRUCTION

The four-years course provides for a liberal and thorough training along scientific lines in agronomy, soil fertility, animal husbandry, dairy husbandry, horticulture, farm mechanics and cotton industry. General training in chemistry, physics, botany, biology, English and mathematics is also provided. Since the field of agricultural education is so broad that it is quite impossible for a student to pursue all the courses offered in four years, certain fundamental studies are prescribed, and the largest liberty of selection commensurate with the best interests of the student, is permitted. In this way the student is enabled to select a course which is in keeping with his taste, and at the same time obtain sufficient special training to fit him for the line of work he desires to pursue after graduating.

The one-year course is provided for men who have only a limited amount of time and money at their disposal, and who in many instances have not the fundamental training which would enable them to pursue a four-years course of study advantageously. Men of this class, however, can improve their knowledge and ability to manage farms and meet their problems by pursuing this course. Naturally, the training provided in this course is of a restricted and practical nature.

The three-months course and the ten-day courses and conferences are provided for those actually engaged in farming or interested directly or indirectly in it who desire to obtain the largest amount of practical knowledge which they can apply immediately and with profit, at a minimum of cost. These courses confer great benefits upon all who pursue them, and are to be commended particularly to men varying in age from 25 to 60 years who have not had the benefits of agricultural training in the past, and are therefore at a loss to know where to look for information and very often how to apply it successfully even after they have acquired it.

BACHELOR OF SCIENCE IN AGRICULTURE

The degree of Bachelor of Science in Agriculture is conferred on those who complete the four-year course. Those who desire special information relative to any part of the course may obtain it by writing to the college authorities. An outline of the degree course is as follows:

Freshman.		Sophomore.	
Agronomy 1, 2	2 hrs.	Animal Husb. 2, 3, 4 and 5	4 hrs.
Animal Husbandry 1,	1 "	Botany 1,	3 "
Farm Mch. 1, 2, 3, 4, 5,	3 "	Agr. Chemistry 1 and 2,	4 "
Horticulture 1, 2 and 3,	3 "	History 2 or 4,	3 "
English 1,	3 "	English 2,	3 "
Chemistry 1,	3 "	Physics 2,	3 "
Mathematics 1 and 2	3 "	Veterinary Science 1, 2,	3 "
Military Science	1 "		
	19 hrs.		23 hrs.

GENERAL AGRICULTURE.

Junior.		Senior.	
Agr. Chem. 2b and 3b,	4 hrs.	Agr. Chemistry 4b,	4 hrs.
Agronomy 5, 6,	4 "	Animal Husb. 6, 7,	2 "
Agronomy 3,	3 "	Poultry Husb. 1,	1 "
Farm Mch. 6, 7,	2 "	Veterinary Science 3, 4,	3 "
Horticulture 10,	1 "	Cotton Industry 4, 5,	3 "
Bacteriology } Entomology }	3 "	Farm Mech. 8, 9,	1½
		Forestry	1½
Elective	4 hrs.	Elective	6 hrs.
	21 hrs.		22 hrs.

AGRONOMY.

Junior.		Senior.	
Agr. Chem. 2b and 3b	4 hrs.	Agr. Chemistry 4b,	4 hrs.
Agronomy 5, 6,	4 "	Agronomy 7 and 8,	3 "
Agronomy 3,	3 "	Agronomy 11,	1 "
Cotton Industry 4, 5,	3 "	Cotton Ind. 7 and 8,	4 "
Bacteriology } Entomology }	3 "	Farm Mch. 8, 9,	1½
		Forestry 3,	1½
Elective	4 hrs.	Elective	6 hrs.
	21 hrs.		21 hrs.

ANIMAL HUSBANDRY.

Junior.		Senior.	
Agr. Chem 2b and 3b,	4 hrs.	Agr. Chemistry 4b,	4 hrs.
Animal Husb. 6, 7,	2 "	Animal Husb. 8, 9,	6 "
Vet. Medicine 3, 4,	3 "	Vet. Science 5, 6,	3 "
Agronomy 5, 6,	4 "	Farm mech. 8, 9,	1½
Farm Mech. 6, 7,	2 "	Forestry 3,	1½
Bacteriology } Entomology }	3 "	Elective	6 hrs.
Elective	3 hrs.		
	21 hrs.		22 hrs.

HORTICULTURE.

Junior.		Senior.	
Agr. Chemistry 2b, 3b, or Botany 9	4 hrs.	Agr. Chem. 4b, or Bot. 6	4 hrs.
Farm Mech. 6, 7	2 "	Hort. 11, 14, 15 or 16	3 "
Hort. 4, 5, 6, 7, 9, 10	6 "	Horticulture 12	3½
Agronomy 5, 6	4 "	Cotton Ind. 4	1½
Bacteriology	1½	Farm Mech. 8, 9	1½
Entomology	1½	Forestry 3	1½
Elective	3 hrs.	Elective	6 hrs.
	22 hrs.		21 hrs.

CHEMISTRY.

Junior.		Senior.	
Agr. Chem. 2, 3	9 hrs.	Agr. Chemistry 4	9 hrs.
Agronomy 3	3 "	Animal Husb. 6, 7	2 "
Agronomy 5, 6	4 "	Poultry Husb. 1	1 "
Bacteriology	1½	Farm Mechanics 8, 9	1½
Entomology	1½	Geology	1½
Elective	3 hrs.	Elective	6 hrs.
	22 hrs.		21 hrs.

FARM MECHANICS.

Junior.	hrs.	Senior.	hrs.
Farm Mechanics 10	4	Farm Mechanics 14, 15	5½
Agronomy 5, 6	4	Animal Husb. 6, 7, and Poultry Husb. 1	3
Agronomy 3	3	Farm Mechanics 8a	3
Farm Mechanics 11, 12	4	Farm Mechanics 16	3
Chemistry 2b and 3b	4	Forestry	1½
Electives	3	Electives	6
	22		22

Foreign Language.

Students who do not present two units of a foreign language at entrance may take a foreign language in the Freshman and Sophomore years, and carry over Mathematics and Physics into the Junior and Senior years.

Those desiring to study medicine may continue the study of French and German in the Junior and Senior years, and thus prepare themselves for entrance into the highest grade medical schools of the United States.

Laboratory Periods.

In the College of Agriculture two laboratory hours count as one hour of recitation, and are included on that basis in the number of hours required.

Changes in Courses.

When changes are made in the courses, students may graduate under the curriculum in force when they enter or under the new curriculum, provided they conform to all of the requirements.

Electives.

The courses are arranged so that students may pursue a general course in the Junior and Senior years or specialize in Agronomy, Animal Husbandry, Horticulture, Chemistry and Farm Mechanics. Students who desire to specialize must elect a group in the Junior year and take the coördinate group in the Senior year. Before registering they must submit a written statement of electives for the year to the head of the department from which their group is chosen. Students who specialize will be required to write a thesis before graduation. The thesis must be on a topic related to the group selected in the Junior year.

BACHELOR OF SCIENCE IN FORESTRY.

The degree of Bachelor of Science in Forestry is given upon the completion of the studies outlined below. These studies have been chosen for their cultural as well as their professional value.

Note.—Candidates for this degree who do not offer two units in foreign language at entrance, must take a foreign language in the Freshman and Sophomore years in addition to the scheduled work.

Freshman.	hrs.
Shop Work (F. Mch. 1)	1½
Drawing (Mch. 2 and 2*a*),	2½
English 1,	3
History 2 and 3,	3
Mathematics 1, 2,	3
Physics 2,	4
Botany 1,	4
	21

Sophomore.	hrs.
Forest Surveying, (F. Mch. 5*a*)	4
Saw Mill Construction, (F. Mch. 5*b*)	
English 2,	3
Mathematics 3,	3
Botany 2,	4
Chemistry 2,	4
Forestry 4,	3
	21

Junior.	hrs.
Saw Mill Machinery, (F. Mch. 7*a*)	4
Timber Physics, (F. Mch. 7*b*)	
Wood Preservatives, (F. Mch. 7*c*)	
Botany 9,	4
Zoölogy 2,	4
Analysis of Woods, Gums, Resins, and Derivatives, (Agr. Chem. 2*a* and 3*a*)	6
Forestry 5,	3
Geology	1½
	22½

Senior.	hrs.
Soil Physics (Agronomy 5 and 6)	4
Concrete (F. Mch. 8*a*)	1½
Forest Roads (F. Mch. 9)	
Forestry 5,	2
Forestry 6,	2
Forestry 7,	2
Forestry 8,	4
Forestry 9,	2
Forestry 1,	3
	20½

AGRONOMY

JNO. R. FAIN, Professor.
G. A. CRABB, Adjunct Professor.
L. E. RAST, Adjunct Professor Cotton Ind.
P. O. VANATTER, Instructor.
R. R. CHILDS, Instructor.
L. S. WATSON, Instructor.
LLOYD WORRALL, Tutor.

1. **Cereals.** The cereals studied include wheat, corn, oats, barley, rye and rice; sorghum, millet and buckwheat are studied briefly in so far as the grains are used for food. The study of these cereals includes the origin, history, composition, cultivation and methods of improvement. In addition to text-book work, the cereals are grown in nursery rows convenient to the College, so that the student may study the plants first hand. The demonstration field is also used for the same purpose. Two hours. Second and third term. Freshman. *Professor Fain, Professor Rast.*

2. **Cereal Judging.** This is a laboratory course. The study begins with the seed and is followed up by the study of the mature plant and its relation to seed production. A part of this work is in the field and in the demonstration barn, so that the student is taught not only the various facts in regard to the development of the cereals, but he acquires the habit of studying these plants in the field. The demonstration field and cereals grown in nursery rows form excellent facilities for this work. The germination of corn is given especial attention, and the records in the demonstration field are used in this connection, showing the relationship between the germination and growth of the various varieties tested. One laboratory period. Second and third term. Freshman. *Professor Fain, Professor Rast.*

*4. **Grasses and Forage Crops.** The different varieties of grasses and forage crops are studied with reference to their yield, composition and feeding value. Special attention is paid to those grasses and forage crops that are adapted to southern conditions. As silage is undoubtedly the cheapest form in which forage crops can be prepared in this state, considerable attention is given to the crops best adapted for silage, the best method of handling the crop and harvesting it. This course alternates with "12" and "13." Given first in 1914-1915. Two lectures and one laboratory. Junior *Professor Fain.*

5. **Soil Physics.** A study is made of the origin of soils, the different forms of disintegration, and the physical properties of different types, especially in their relation to crop production. Laboratory

experiments are required with type soils. Each student may substitute his home soil for one of the types. This should be an average sample, taken from several places of the most uniform type from his home farm and community. In addition to the text, parallel reading will be assigned. Two lectures and two laboratory periods. First half year. Junior. *Professor Crabb.*

6. **Soil Fertility.** Factors in crop production and methods of controlling these are studied with especial attention to the influence of culture and fertilization. Methods of handling the soil, so as to permanently increase fertility, rather than for temporary crop production, are emphasized. Special attention will be given to the uses of commercial fertilizers and general soil management. Parallel reading will be assigned. Two lectures and two laboratory periods. Half year. Junior. *Professor Crabb.*

7. **Soil Formations.** This course will include a study of the soil provinces of the United States, their origin and methods of formation, soil series and types and their relation to crop adaptation, with especial attention given to southern soils and conditions. Parallel reading will be required. First and second term. Two lectures and one laboratory. Senior. *Professor Crabb.*

8. **Drainage and Irrigation.** The history and development of drainage and irrigation, their economic relation, the principles and practices of each as applied to southern soils. Third term. Two lectures and one laboratory period. *Professor Crabb.*

*9. **Soil Management.** A study will be made of the principal soil types of the South and especially of Georgia, the object being to determine the value of plant food taken from the soil by various crops and to plan methods for increasing soil fertility and establishing systems of permanent agriculture. Laboratory studies will be made in the greenhouse by pot tests and soil solutions of the principal types of the state. Prerequisite, Agronomy "5" and "6." Two lectures and one laboratory period. This course will be given first in 1915 and in 1917, and will alternate with Agronomy "10." *Professor Crabb.*

*10. **Fertilizers and Manures.** This course will include the history and the development and production of the various materials used to increase crop growth. Source, manufacture, application and effect of the different materials will receive especial attention. Laboratory work will be carried on in the greenhouse to study the effect of the different fertilizing materials on plant growth. Prerequisite, Agronomy "5" and "6." Two lectures and one laboratory period. Seniors. This course will alternate with Agronomy "9," and will be given first in 1914 and in 1916. *Professor Crabb.*

11. **Seminar.** An opportunity for the student to keep in touch with the progress in Agronomy will be given in this course. Current periodicals and recent books will be reviewed. One two-hour period. Seniors. *Professor Fain, Professor Crabb,* and *Professor Rast.*

*12. **Weeds.** Weeds prevalent in the various sections of the state will be studied with reference to their habits of growth, crop relationship and means of eradication. Time of growth, seed habits, and means of seed distribution will be given especial attention. Students will be required to make a collection of weeds and their seeds, and classify them. This course will be given only in connection with Agronomy "13," and will alternate with Agronomy "4." Two lectures and one laboratory period. One-half year. Senior. *Professor Fain.*

*13. **Seeds.** Seeds will be considered relative to their structure, production, vitality, purity, commercial grades, centers of production, and market variations. Two lectures and one laboratory. Given only in connection with number "12" and alternating with number "4." One-half year. Senior. *Professor Fain.*

14. **Farm Crops.** This course is designed to give the students an opportunity to continue the study of cereals as well as to consider crops especially adapted to the state. Experiment Station literature will be freely consulted. The records of the College field work will be given especial attention. Definite problems with one or more of these crops will be given the students. Two lectures and one laboratory period. Senior. *Professor Fain.*

COTTON INDUSTRIES

1. Special students who wish to take work in cotton industry will be given an opportunity to become familiar with the literature of cotton. The instructor will meet with such students once a week for conference and direction. Experiment Station work in this country will receive especial attention. *Professor Rast.*

2. **Field Work for Special Students.** Field work conducted by this department will give students opportunity to get first hand information from the experiments under way. The records of the field for some years are also available. *Professor Rast.*

*3. **Production of Cotton and other Fibre Crops.** Varieties, methods of selection, planting, culture, harvesting, and marketing of the cotton crop will be considered in detail. As a matter of comparison with the cotton crop other fibre crops will be considered. The laboratory work consists of combing, mounting, testing fibres, and grading, as well as a considerable amount of field work. Junior or Senior. Two lectures and one laboratory. *Professor Rast.*

4. **Plant Breeding.** A general course in the principles of breeding, with especial reference to technique in cotton breeding. Text, Bailey's "Plant Breeding." Supplemented by numerous references. First half year. Two lectures, one laboratory. Juniors in Agronomy and Senior elective. *Professor Rast.*

5. **Plant Breeding.** An extension of the above course which is prerequisite. A study of the methods used by the best plant breeders will constitute the greater portion of this course. A certain amount of practice both in field and greenhouse is required of each student. Two lectures and one laboratory period. Second half year. Juniors in Agronomy and Senior elective. *Professor Rast.*

*6. **Agricultural Colleges and Experiment Stations.** This course will include the history and development of the land-grant colleges and experiment stations in the United States and their relation to the advancement of agriculture, also a review of the development along similar lines in other countries. The influence of agricultural societies will also be considered. Especial attention is given to present methods in experiment station work. Three hours. One-half year. Seniors. *Professor Fain.*

7. **Research.** Cotton Industry "4" and "5" are prerequisite for this course. Further consideration is given to plant breeding in which opportunity offered for the study of cytology of cotton and the cytological aspect of cotton breeding. Text, Punnett's "Mendelism." One lecture and two laboratory periods. First half year. Senior. *Professor Rast.*

8. **Biometry.** Students have special work in correlating characters of the cotton plant. The various lines of breeding carried on at the College afford an opportunity for a study of statistical methods. One lecture, two laboratory periods. Second half year. *Professor Rast.*

ANIMAL HUSBANDRY

MILTON P. JARNAGIN, Professor.
J. W. HART, Junior Professor.
O. T. GOODWYN, Instructor.

1. **Types and Breeds of Farm Animals.** This course includes a brief study of all the domesticated farm animals. Liberal use is made of the lantern, in order to familiarize the student with the best specimens of all the leading breeds. Practical work is given in the

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*Note: The following courses will not be given unless as many as five students are registered for them: Agronomy "4," "9," "10," "12," "13," "14." Cotton Industry "3" and "6."

afternoon in the judging and handling of animals on the College farm. Two one-hour recitations and two two-hour laboratory periods. First term. Freshman.

2. **Horses, Mules and Beef Cattle.** In this course the origin, history and development of the various breeds of horses and beef cattle are studied. The adaptation of the various breeds and types to different conditions of soil, climate and environment is considered. A comparison of draft and light horses is made, and especial emphasis is laid on the adaptation of the different types of horses and mules to various kinds of work. Two one-hour recitations each week. First term. Sophomore year.

3. **Dairy Cattle.** In this course the origin and utility of the several breeds of dairy and dual-purpose cattle are studied. Their adaptation to the production of milk, butter, cheese, or to both milk and beef making are carefully considered. A comparison of the profits derived from the various breeds under different conditions of farming forms an important part of the instruction provided. Two one-hour recitations each week. Second term. Sophomore year.

4. **Sheep and Swine.** This course embraces a study of the history and development of the various breeds of lard and bacon hogs, both of English and American origin. Especial attention is given in this course to types of hogs suited to grazing. The history of the various breeds of sheep is taken up, and comparison of the several classes made. Special emphasis is laid on growing and marketing. lambs and on classifying wool. Two one-hour recitations. Third term. Sophomore year.

5. **Stock Judging.** The students receive training in the use of the score card for various classes of live stock, and study the standards of excellence as established by the several breed associations. In addition to this, they are given practical work in comparative judging and show-ring placing of various breeding and market classes of horses, dairy and beef cattle, bacon and lard hogs and fine, medium and long wool sheep. Two two-hour laboratory periods each week. First, second and third term. Sophomore year.

6. **Swine Husbandry.** A specialized study of underlying principles involved in swine production is taken up in this course. It includes class work covering the origin of the breeds of swine, their adaptation to different section of the country, and market requirements. The principles of breeding, feeding and general herd management of hogs are studied. The laboratory work consists of practical work in judging, feeding, dipping and preparing for sale or the show ring. Practical work will be given in building hog houses, paddocks and other necessary equipment, and in planning

and laying out yards and pastures for hogs. Two one-hour recitations and two two-hour laboratory periods, first term. Junior year.

7. **Principles of Dairying.** This course includes the theoretical and applied side of dairy and creamery practice. A detailed study is made of the theory of milk secretion, formation and production; separation of cream by the shallow and deep setting systems, and by the use of centrifugal machines; the natural fermentations occurring in milk, their benefit and control; the manufacturing of butter; the testing of milk and its products of butter fat.

8. **Principles of Breeding.** The principles of breeding include a consideration of selection, heredity, atavism, normal variation and fecundity. The methods of breeding studied include in-breeding, line-breeding, cross-breeding, and a review of the methods by which the best types of animals have been developed. Three one-hour recitations. Senior year.

9. **Animal Nutrition.** In this course a study of the gross anatomy and physiology of the digestive system is included. The theoretical and practical side of compounding balanced rations for maintenance, milk and butter production, fattening and growth are fully explained. Three recitations per week. Senior year.

10. **Advanced Work in Animal Nutrition.** This course is provided for advanced students in Animal Husbandry. The results of feeding tests at the various experiment stations and agricultural colleges in this and other countries are reviewed. Three one-hour recitations per week. First term. Senior year.

11. **Feeding Problems.** Qualified students will be allowed to assist in conducting feeding tests, keeping records and summarizing results of experimental feeding conducted by the Department of Animal Husbandry. They will also be expected to make analyses of the various feeding stuffs used and to determine the fertilizing value of the excreta obtained from various classes of farm animals. Three one-hour recitations per week. Second term.

12. **Economics of Animal Production.** In this course the various types and breeds of live stock are considered in their relation to the utilization of various farm crops, the productiveness of the soil and the creation of wealth in general. Three one-hour recitations per week. Third term.

13. **Research Work in Animal Husbandry.** Qualified students will be allowed to carry on investigations in Animal Husbandry under the approval and direction of the professor in charge of the department. Three hours. Senior.

POULTRY HUSBANDRY

L. L. JONES, Adjunct Professor.

1. **Farm Poultry.** A study of breeds best suited to farm conditions; farm poultry house construction; hatching and rearing chicks; feeding for egg and meat production and sanitary handling and marketing of poultry products. Two one-hour recitations and two two-hour laboratory periods. Third term. Juniors.

2. **Poultry Breeding.** Advanced study of laws of poultry breeding, comparison of various poultry "systems," and a study of poultry diseases. Practice work given in judging, mating, incubator management, brooding and feeding. One lecture and two two-hour laboratory periods. Third term. Elective for Seniors who have completed Poultry.

HORTICULTURE

T. H. McHATTON, Professor.
J. W. FIROR, Adjunct Professor.
R. E. BLACKBURN, Tutor.

1. **Elements of Horticulture: Fruit Growing.** A general study of location, site, frost, planting, varieties, orchard tillage and management. Three lectures per week. Required of Freshmen in fall term.

2. **Pruning and Propagation.** A course in grafting, budding and other methods of propagation; also a study of pruning with its practice and effect. A few periods are devoted to a study of varieties both for the orchard and truck garden. Laboratory course of three periods per week. Required of Freshmen in winter term.

3. **Elements of Horticulture: Truck Gardening.** A general study of the main truck crops as to planting, tillage and handling, with the addition of a study of hot-beds and their management. Three laboratory periods per week. Required of Freshmen in spring term.

4. **Small Fruits.** A study of the various small fruits of interest to the horticulturist. Three lectures a week for six weeks. Book, "Bush-Fruits," by Card. **Fruit Harvesting, Storing and Marketing.** Three lectures a week for six weeks. Book, "Fruit Harvesting, Storing, Marketing," by Waugh. Required of Juniors electing Horticulture in the fall term.

5. **Pomology and Garden Seeds.** A course in the testing of seeds and a study of the several species of fruit with their pomological classification. Book, "Systematic Pomology," Waugh, supplemented by lectures. A laboratory course of three periods per week, to be carried with course "4." Required of Juniors electing Horticulture in the fall term.

6. **Greenhouse Management and Floriculture.** A study of the various flower crops, forcing crops and management of a greenhouse. Reference books, "Greenhouse Management," Taft; "The Forcing Book," Bailey, and "Practical Floriculture," Peter Henderson. Three lectures per week. Required of Juniors electing Horticulture in the winter term.

7. **Greenhouse Construction and Management.** A study of the different types of greenhouses and heating, construction, etc., of same. In connection with this course, trips to florists and nurseries are taken to study the plants and greenhouses. A ground plan, end elevation, bill of material and description of heating plant used in a greenhouse required of the students at the end of this course. Actual work in greenhouse management is given. Reference book: "Greenhouse Construction," Taft. A laboratory course of three periods per week. Required of Juniors electing Horticulture in the Winter term.

8. (Course dropped).

9. **Spraying.** Lectures on the history and chemistry of spraying. Practice in the making and application of spray mixtures accompanied by a study of nozzles and machinery. Three laboratory periods per week. Required of Juniors electing Horticulture in the spring term.

10. **Landscape Gardening.** A study of the various schools of landscape architecture and the plants used in producing the various effects. A problem in landscaping is given each student and a drawing showing the solution required. Three lectures per week. Required of Juniors in Horticulture and General Agriculture in the spring term.

11. **Advanced Pomology.** A course of three lectures per week throughout the year open to Seniors in Horticulture. Course "11" must be carried in conjunction with course "12." A detailed study of the practical and scientific phases of fruit growing form the basis of this course and the work is supplemented by numerous references.

12. **Thesis.** A subject relating to either course "11," "14," "15" or "16" will be assigned to the student for study. At the end of the course a thesis, stating the problem, results obtained, etc., is required of the student. A course of three laboratory periods per week throughout the year and conference hours to equal one-half hour. Required of Seniors in Horticulture.

13. **Economic Entomology.** A course in practical Entomology designed especially for use upon the farm. Special attention is paid to the identification of insects and a collection is required of the student at the end of the work. Three hours per week. Required of all Juniors in the College of Agriculture for the last half of the winter term, and all of the spring term.

14. **Advanced Olericulture.** A course of three lectures per week throughout the year, open to Seniors in Horticulture. Carried with course "12." A practical and scientific study of the problems of vegetable culture, both out doors and under glass. Work supplemented with numerous references.

15. **Advanced Floriculture.** Three lectures per week throughout the year, open to Seniors in Horticulture. Carried with course "12." A study of the more practical and scientific problems of flower growing both under glass and outdoors. Supplemented with numerous references.

16. **Advanced Landscape Gardening.** Three lectures per week throughout the year, open to Seniors in Horticulture and to be carried with course "12." Landscape problems of homes, cities, parks, schools, public buildings, etc., receive attention. Work supplemented with numerous problems and references.

Note. The professor in charge will not be required to give courses "11," "14," "15" or "16" to less than five students, unless the whole Senior class in Horticulture is less than five, in which case he can put all the members of the class into the course most acceptable to them.

FARM MECHANICS

LEROY C. HART, Professor.
L. G. PROCTOR, Student Instructor.
E. RAGSDALE, Student Instructor.
L. R. SMITH, Student Instructor.

Shop Work. *a.* **Wood Work.** This course is designed for the instruction of the student in the use, care and sharpening of all wood working tools. A carefully planned series of exercises are offered. These exercises bring into use all tools that will be helpful to the student in after life. An advanced course in wood work planned for students having had the preliminary work, will be given. This course will consist of the design and building of furniture and other articles for the home. Required of Freshmen.

b. **Forge Work.** This work is designed to familiarize the student with the building and care of coal fires, the manufacture of iron and steel, and to familiarize him with the working and handling of iron and steel. Tool-making and tempering will be given. Required of Freshmen.

2. **Drawing.** Sufficient time will be devoted to free-hand drawing to enable the student to execute readily the necessary drawings in the various laboratory courses. Instrumental drawing will then be taken up so that the student may become familiar with the use of the instruments and be able to execute rapidly and neatly any drawing of this kind that will be required. Freshman year.

a. **Forest Drawing.** Special drill in drawing topographical maps, using all topographical signs employed in the United States topographic surveys. This course is for Forestry students, but may be elected by advanced students.

3. **Farm Machinery Judging.** A study will be made of the construction and use of the various farm machines, such as are used for preparing, planting, cultivating, harvesting, storing and for home and miscellaneous machinery. Each group will be taken up separately, studied and judged. Required of Freshmen.

a. **Dynamite.** As dynamite has come to be of considerable importance in agriculture, a short review of its manufacture and use will be given in connection with Farm Mechanics "3."

4. **Farm Motors.** Considerable time will be given to study and operation of the gasoline engine, the steam engine and the electric motor. This course is taken up in connection with Farm Mechanics "3." Required of Freshmen.

5. **Farm Surveying.** This work will consist of the study and the use of farm levels, compass and transit for terracing, leveling and the survey of farm lands, and also their use in road building. Each student will be required to make a thorough map of a plot of ground and compute its area. The use of these instruments in tile drainage will be taken up and a survey and map will be made of a plot of ground needing drainage. Required of Freshmen.

a. **Forest Surveying.** An advanced course is offered in the use of the compass, level, plane table and transit, with special attention to the different uses of these instruments in topographic and reconnoissance work. The work will consist of a hasty survey of a plot of ground. Then a more careful survey will be made as a check upon the first to illustrate the difference in accuracy. This will enable the student to determine the method to be used on all future work. Work required in the Sophomore year for all Forest students, but may be elected by other students who have had Farm Mechanics "5," or its equivalent.

b. **Saw Mill Construction.** In view of the scarcity of proper heavy timber for construction, a course will be given dealing with heavy framing. This course will deal with the framing of saw mill buildings and other structures using built-up members. Forest students. Sophomore year.

6. **Fencing.** This will include a study of the strength and adaptability of various materials for fence construction. The principles of gate construction, such as bracing at the corners and at sufficient points according to the condition of the ground. Junior year.

7. **Farm Building.** This course consists of the study and design of farm buildings, starting with the simple and gradually working

up to the most complicated. Plans are drawn and from these, the bill of material and an estimate of the cost of the completed structure are made. Some attention will be given to farm convenience and sanitation. Considerable time will be spent in studying problems of lighting, heating, water supply and sewerage disposal for the farm home. Farm Mechanics "2," or its equivalent, are prerequisite to this course. Junior year. Fall and winter term. One lecture and two laboratory periods.

a. **Saw Mill Machinery.** This course consists of a study of saw mill machinery of both portable and stationary mills, with all necessay machinery for the complete handling of the lumber from the log to the dry kiln; donkey engines, skidders, logging locomotives and logging cars. Required of Forest students, Junior year.

b. **Wood Physics.** A study of the strength of wood under different conditions and shapes, also the physical effect of moisture, heat and preservatives upon its strength will be taken up. Required of forest students, Junior year.

c. **Wood Preservatives.** The structural and physical properties of wood in relation to durability; the primary cause of decay; factors governing the lasting powers of different species; the preservation of woods by the application of paints and oils to the surface; the impregnation with creosote and other wood preservatives; the commercial method of impregnation; description of preserving plants and the fire proofing of timber. Required of Forest students, Junior year.

8. **Concrete Construction.** A study will be made of the principles of concrete construction, also the material, forms, mixing and placing and tamping. Their application to farm and forest conditions and the various uses to which concrete has been put in late years will be pointed out. Special attention will be given to its use for residences, barns and its application in Forestry. The construction of fence posts from concrete will be taken up. Optional for Seniors. Farm Mechanics "2," "6" and "7" prerequisite, or their equivalent.

a. **Concrete Testing.** An advanced course in the testing of cements and concretes under different conditions, shapes, aggregates and reinforcing will be given. One lecture and two laboratory periods.

9. **Road Building.** A study will be made of the various types of machinery used in road construction. Practice work will be given in locating roads at the most desirable grades with special attention to drainage. Considerable time will be devoted to road material, and in making tests of the various kinds. Optional for Seniors. Farm Mechanics "5" and "5a" prerequisite to this course.

Note. Number "8" and number "9" will constitute half a year's work.

10. **Farm Buildings.** An advanced course in the design, location and construction of all farm buildings. The stresses in different members of a design will be carefully figured. Models will be built and tested to verify the results obtained. Government bulletins and parallel reading "Farm Buildings," Sanders Publishing Co. One lecture and 3 laboratory periods a week throughout the year.

11. **Farm machinery.** An advanced course in the elements of machinery. The measurement and transmission of power. The development, use, construction and repair of all farm machinery. Text, "Farm Machinery and Farm Motors," parallel readings, prerequisite Farm Machinery "3."

12. **Farm Motors.** The sources of power for agricultural purposes. The horse as a motor. Tread and sweep powers. Steam, gasoline, air and oil engines and tractors, windmills and electric motors, as far as applicable to agricultural purposes. Texts, "Power and the Plow," "Gasoline Engine on the Farm." Parallel reading, prerequisite Farm Mechanics "1" and "4." "11" and "12" constitute a year's work. One lecture and three laboratory periods throughout the year.

14. **Farm Sanitation.** An advanced course in the lighting, heating, ventillation, plumbing and drainage of farm buildings. Also in methods employed for sewage disposals. Text, "Rural Hygiene," by Ogden. "Practical Methods of Sewage Disposal," Ogden and Cleveland. "Domestic Water Supplies for the Farm," Fuller. Parallel readings. Government bulletins. Prerequisites, Farm Mechanics "7." One lecture and three laboratory periods throughout the year.

15. **Drainage and Irrigation Engineering.** Drainage of farm lands, both by the open ditch and tile drainage. Methods used in making the preliminary surveys and estimates. The finished survey and report. Drainage laws and assessments. Irrigation methods in use. The application and measurement of water. Texts. "Irrigation and Drainage," by King. "Practical Farm Drainage," and "Engineering for Land Drainage," by Elliott. Government bulletins and parallel reading. Prerequisite Farm Mechanics,"5", one lecture and two laboratory periods half year.

16. **Road Building.** A continuation of Farm Mechanics, "9." The economic value of good roads will be taken up in connection with a more detailed study of the problem. The location, drainage, road material, construction and road machinery will be studied. Highway bridges and culverts will be taken up. Text, "American Highways," Shaler. Government bulletins and parallel reading. Prerequisite Farm Mechanics "5," one lecture and laboratory periods throughout the year.

17. **Agricultural Surveying.** An advanced course in use of the usual surveying instruments, with especial attention to detail and accuracy. Text, Pence and Ketchums "Surveying Manual," and "Land Surveying," Hodgman. Prequisite Farm Mechanics, "5," and "5a." One lecture and two laboratories throughout the year.

VETERINARY SCIENCE

W. W. BURSON, Professor.
H. H. ROTHE, Adjunct Professor.

1. Consists of lectures and demonstrations covering the anatomy and physiology of the animals of the farm. Special attention is given to the anatomy of the horse and cow with variations occuring in other farm animals. Histology is taught by lectures and by examination of animal tissues under the microscope. Materia Medica is taught by lectures, examination of specimens of crude and prepared drugs and medicines. First, second and third terms. Two hours per week. Sophomore year.

2. Consists of laboratory work in the above subjects. First, second and third terms. One laboratory period per week. Sophomore year.

3. Consists of lectures on Pathology, Bacteriology, Parasitology, Theory and Practice, and Lameness. First, second and third terms, Two hours per week. Junior year. Courses "1" and "2" are prerequisites.

4. Consists of laboratory courses in Pathology and Bacteriology. First and second terms. One laboratory period per week. Junior year.

5. Consists of lectures in Theory and Practice, Therapeutics, Surgery, Dentistry, Obstetrics and Contagious Diseases. First, second and third terms. Senior year. Two hours per week. Courses "1," "2," "3" and "4" prerequisite.

6. Consists of free clinics held during the school year at the Veterinary Hospital. Third term. Junior year. First, second and third terms. Senior year.

7. **Bacteriology.** This course is designed to give the student in agriculture general information concerning various important forms of germ life. Lectures and laboratory work constitute the course. The various classes of bacteria are studied, special attention being paid to soil bacteria, saprophytes and those concerned in plant and animal diseases. Laboratory work consists of study of cultures and specimens under the microscope.

Two lectures and one laboratory period per week, first half year. Required of Juniors. Text: "General Bacteriology," Jordan.

AGRICULTURAL CHEMISTRY

W. A. WORSHAM, Jr., Professor.
L. M. CARTER, Junior Professor of Soil Chemistry.
D. D. LONG, Professor in Charge Soil Survey.
M. W. LOWRY, Instructor.

1. **Organic Chemistry.** This course consists of the study of the classification and relation of the carbon compounds, and the preparation of the simpler and more important ones.

Stress is laid on those compounds relating most directly to agriculture, such as the organic compounds in the soil, feeds, fertilizers and organic adulterants.

Students taking this course must have had elementary Chemistry "1," or Inorganic Chemistry "2," including work in laboratory. Haskins & Macleod's "Organic Chemistry" will be used as a basis of this work. Three hours of lectures and recitations and one laboratory period during first and second terms of Sophomore year.

2. **Qualitative Analysis.** In this course a study is made of the characteristic properties and the reactions of the common metals and the acid radicals, and the general principles underlying qualitative analysis. By systematic work with known substances and then "unknowns" the student is able to familiarize himself with the processes employed in qualitative analysis. This course is designed to enable the student to know the composition of all ordinary substances, particularly those that are of most importance in agriculture. Text: Baskerville and Curtman, "Qualitative Chemical Analysis." Special problems outlined by the instructor.

Two hours of lectures and recitations, and two laboratory periods during third term of Sophomore year, and three hours of lectures and recitations and six laboratory periods during first term of Junior year.

2*a*. **Qualitative Analysis.** Course adapted to needs of students in Forestry.

2*b*. Same as course "2," except students not specializing in Chemistry take two hours of lectures and recitations and two laboratory periods during first term of Junior year. Required of students taking General Agriculture, Agronomy and Animal Husbandry.

3. **Quantitative Analysis.** The object of this course is to prepare the student for special work in agricultural chemistry as well as to teach the method of quantitative analysis.

The methods of both gravimetric and volumetric analysis will be treated in lectures and the practice carried out in the laboratory. Substances of known percentage composition, including the simpler

agricultural products. Texts: "Elementary Quantitative Chemical Analysis," Lincoln and Walton. Reference books, "Quantitative Analysis," by Treadwell, Olsen and Fresenius.

3*a*. **Quantitative Analysis.** Course adapted to needs of students in Forestry. Gums and resins will be given special attention.

3*b*. Same as course "3," except that students not specializing in Chemistry, have two hours of lectures and recitations and two laboratory periods. Required of students taking General Agriculture, Agronomy and Animal Husbandry.

4. **Advanced Quantitative Analysis.** The basis of the work in this course will be the study of the methods employed in soil investigations, the analysis of soils, fertilizers, feeds, waters, etc. Some latitude is allowed the student as to the substances to be analyzed. Students taking this course must have had Agricultural Chemistry "3." No text-books required. Work for laboratory will be outlined and standard references given.

Three hours of lectures and recitations and six laboratory periods for three terms during Senior year.

4*b*. Same as course "4," except that students not specializing in Chemistry have two hours of lectures and recitations and two laboratory periods. Required of students taking General Agriculture, Agronomy and Animal Husbandry.

Fees. No laboratory fees are charged for any of the courses offered in this department.

A deposit of $5.00 will be required for each laboratory course to cover breakage of apparatus. If any of this amount is left it will be returned to the student at the end of the year.

FORESTRY

ALFRED AKERMAN, Professor.

Work of Forestry Department.

The school was created in 1905, and work was begun with the academic year 1906-1907. Several lines of work have been undertaken: 1. Instruction in forest policy, to bring out the importance of our forests. 2. Elementary instruction in forestry to familiarize the agricultural students with the management of farm woodlots and the execution of forest working plans. 3. Instruction in professional forestry, for those who intend to go into the lumber business, or to follow forest engineering as a profession. 4. Popular education in forestry throughout the State. 5. Coöperation with the owners of woodlands.

The work along the first line is embodied in course "1," along the second line courses "2" and "3"; along the third line in courses "4,"

"5," "6," "7," "8" and "9"; along the fourth line in publications and in lectures before schools, farmers' institutes, lumbermen's associations, and other interested organizations; along the fifth line in the coöperative agreement which the College of Agriculture makes with woodland owners.

Description of Courses.

1. **Forest Policy.** A study of the public's interest in forests. The development of the forest policies of Germany, France, Switzerland, Great Britain, the United States and the several states. Instruction by lecture. Three hours. Required of Seniors in Forestry.

2. **Farm Forestry.** A study of forestry as applied to farm woodlands. The course is designed to give a working knowledge of how to secure a stand of timber, how to thin, protect and harvest the forest crop. Text: Akerman's "Farm Forestry." Two 1-hour recitations and one 2-hour practice period, third term. Required of those taking the one-year course in Agriculture.

3. **Farm Forestry, Longer Course.** Similar to course "2," but adapted to more advanced students. Two 1-hour lectures and one 2-hour practice period, second half year. Optional with Seniors in Agriculture.

4. **Dendrology.** This course comprises a botanic and economic study of forest trees. Identification of species in the woods in summer and winter habit is given special attention. Instruction is given by lectures, laboratory work and excursions. Reference work: Sargent's "Manual of the Trees of North America." Three hours, Sophomore year. Required of Sophomores in Forestry.

5. **Silviculture.** A study of forest stands from their founding to maturity, including artificial and natural reproduction, tending the stand, and silvical notes on the important species. Instruction by lecture, excursion and practice. Three hours, Junior year; six hours first term of Senior year. Required of Juniors and Seniors in Forestry.

6. **Forest Protection.** A study of the injury to the forest from trespass, fire, storms, insects, fungi and grazing, and of protective measures. Instruction by lecture, excursion and practice. Six hours, third term. Required of Seniors in Forestry.

7. **Forest Mensuration.** Computation of contents of logs, standing trees and forest stands; studies in diameter, height and volume increment; the use of instruments of mensuration; occular estimation of timber; log scales and their use. Instruction by text, supplemented by lectures and practice in the woods. Text: Graves' "Forest Mensuration," and Cary's "Manual." Six hours first term, Senior year. Required of Seniors in Forestry.

8. **Forest Management.** Forest valuation, financial returns from forest property; principles of forest working plans; construction of a forest working plan for a given tract. Instruction by lecture, with practice in the woods. Senior year, six hours and third terms, Required of Seniors in Forestry.

9. **Lumbering and Utilization.** A study of the lumber industry and the uses of wood; the methods employed by lumbermen, and their improvement; felling, transportation and manufacture. An essay on some branch of the lumber industry is required. Instruction by lectures, supplemented by reading and investigation. Six hours, second term, Senior year. Required of Seniors in Forestry.

Summer Term.

Candidates for degree are required to live for two months each summer between the Sophomore and Junior, and Junior and Senior years at a lumber camp, saw mill, or turpentine distillery, to keep a diary of each day's work, to make a herbarium of the forest flora of the locality and prepare a thesis on the operations being carried on. It is preferred that students secure some employment connected with the operations.

Coöperation with Lumbermen.

The College furnishes an expert to examine woodlands and prepare suggestions as to their management. Those who desire advice in the management of woodlands or in planting waste lands should make application on blanks which are sent on request.

MASTER OF SCIENCE IN AGRICULTURE

A graduate course in agriculture is offered leading to the degree of Master of Science in Agriculture. A reputable baccalaureate degree is a prerequisite. The major and at least one minor must be elected from courses offered in the College of Agriculture. One minor may be chosen from graduate courses offered in other departments of the University. The choice of courses is subject to the approval of the professor in charge of the department in which the major course is selected.

Graduate work is offered in five courses by the College of Agriculture, in Agronomy, Agricultural Chemistry, Horticulture, Animal Husbandry, Veterinary Medicine.

In Agronomy stress is laid upon soil types of Georgia, improvement of seed corn, physical properties of soils, fertilizers.

In Agricultural Chemistry, special attention is given to agricultural chemistry analysis, with select readings and laboratory work.

Graduate work in Horticulture will be given in advanced pomology, with select readings upon plant breeding, origin of species, etc.

Animal Husbandry Graduate work will take up feeding tests with study of chemical and physiological changes in animal life.

Graduate work in Veterinary Science consists of theory and practice of veterinary medicine, clinics, lectures and laboratory work in bacteriology.

Graduate Courses in Summer School. The University will permit a graduate student, eligible to candidacy for a master's degree, to secure it upon the completion of graduate courses pursued during not less than three summer sessions.

For full particulars about graduate work, the candidate should write to the University of Georgia for special bulletin announcing the Graduate School.

MATHEMATICS.

C. M. SNELLING, Professor.
R. P. STEPHENS, Associate Professor.
R. S. POND, Adjunct Professor.
D. R. CUMMING, Tutor.

1. **Trigonometry.** A course in plane and spherical Trigonometry. Three hours per week for the first two terms. Texts: Murray's. *Professors Snelling, Stephens* and *Pond*, and *Mr. Cumming.*

2. **Graphical Algebra.** This will include a study of coördinates, the plotting of curves, and the derivation of the equations of the straight line and the circle. Three hours per week for the third term. *Professors Snelling, Stephens* and *Pond*, and *Mr. Cumming.*

3. **Analysis.** The work of course "2" will be continued by the study of the equations of the conics and by an introduction to the Calculus. Three hours per week for the first half year. Text: Smith and Granville's. *Professors Stephens*, and *Pond*, and *Mr. Cumming.*

4. **Advanced Algebra.** The following topics will be treated: mathematical induction, binomial theorem, complex numbers, determinants, theory of equations, partial fractions, series, and logarithms. Three hours per week for the second half year. *Professors Stephens*, and *Pond*, and *Mr. Cumming.*

CIVIL ENGINEERING.

C. M. STRAHAN, Professor.
E. L. GRIGGS, Associate Professor.
S. B. BLACK, Adjunct Professor.
(C. O. Pope and F. O. Miller, Student Assistants.)

A-1. **Elementary Surveying.** A course covering the use, care, and adjustment of surveying instruments, methods of surveying by chain alone, by compass, and by transit; the methods of platting

and computing areas and volumes; the variation of the magnetic needle; problems in parting off and dividing lands; the use of the Y level and precise leveling; plane table and stadia surveying, and the use of the solar transit. Three hours per week. Texts, Breed and Hosmer's "Surveying." *Professor Griggs.*

B-1. **Materials of Construction.** A course of lectures and laboratory work covering the occurrence, preparation, and manufacture of the important structural materials, to-wit: lumber, its seasoning, inspection and preservative treatment; stone, natural and artificial, including brick, terra cotta, cements, concrete blocks, etc.; the metals, including cast iron, wrought iron, steel, copper, tin, lead, zinc, aluminum and alloys as used by engineers; uniting materials, covering limes, mortars, cements, bituminous binders, joinery, riveting, etc. First and second terms. The third term is given to Foundations and Masonry structures, the course being based on Baker's Masonry Construction. Three hours per week. *Professor Strahan.*

B-2. **Railroad Engineering.** A course covering reconnoissance, preliminary and location surveys, curves, spirals, switches, etc., cross-sectioning, computations and estimates, railroad economics and the various other problems involved in the complete engineering of railways. Three hours per week. Text: Webb's "Railroad Construction." Lectures. *Professor Strahan.*

B-3. **Highway Engineering.** A course of lectures, laboratory and field problems covering the surveys, location, drainage, grading and surfacing of public highways and city streets. The preparation of maps, profiles and estimates. Paving methods and specifications. Road finances, equipment and labor. Three hours per week. *Professor Black.*

PHYSICS.

L. L. HENDREN, Professor.
C. R. FOUNTAIN, Adjunct Professor.
E. A. BAILEY, Student Assistant.
C. H. STONE, Student Assistant.

The following courses are offered for agricultural students. For other courses see the A. and M. College announcements.

2. **Elementary Physics.** A college course covering the elementary principles. In this course especial emphasis is laid upon the application of the principles of Physics to practical life. Three hours per week recitation work and two hours per week laboratory work throughout the year. Required of all Sophomore B. S. agricultural students and Freshman B. S. forestry students.

3. **Physical Measurements.** This course is offered as an extra course for students taking Physics "2" who desire to do more individual laboratory work than is required in the regular course. Two hours per week in the laboratory.

CHEMISTRY.

H. C. WHITE, Professor.
H. V. BLACK, Associate Professor.
R. W. ALLEN, Instructor.

The following courses are offered:

1. **Elementary Chemistry.** Three hours per week of lectures and recitations and two laboratory periods, for three terms. Text: Kahlenberg, "Outlines of Chemistry."

2. **Inorganic Chemistry; College Course.** Three hours per week of lectures and recitations and two laboratory periods, for three terms. Text: Kahlenberg, "Outlines of Chemistry."

BIOLOGY.

JOHN P. CAMPBELL, Professor.
C. D. WARD, Student Assistant.

In this school, the following courses are offered for the coming year:

3. **Invertebrate Zoölogy.** This course is based upon the laboratory study of a series of selected types representing all of the leading invertebrate phyla of the animal kingdom. Anthropods are studied in the first term; Protozoa, Porifera, Coelentrates and some of the smaller phyla in the second; while Annulata, Echinoderms and Mollusca take up a third. This course is intended to give students a broad outlook on the animal kingdom as a whole, and to this end many theoretical questions are taken up in connection with those animals which best serve to illustrate them. Three hours weekly with laboratory work additional.

4. **Vertebrate Zoölogy.** The methods in this course are the same as in course "3." The different classes of vertebrates are studied by means of selected types, but this is supplemented by extended reading, museum work, and lectures profusely illustrated with lantern slides. Three hours weekly with additional laboratory work during first and second terms.

5. **Comparative Osteology.** The comparative structure of the skeletons in the different vertebrate classes is taken up in this course. Special stress is laid upon the broader features of theoretical importance, but sufficient detail will be brought out to make this course valuable to any one who may have occasion to make actual use of its subject matter.

6. **Comparative Anatomy of Vertebrates.** In this course, attention is paid to the broader side of Anatomy, including Embryology and Histology. All the organs in the body are studied comparatively and attention is given to the theoretical questions growing out of this line of study. Based on Kingsley's "Comparative Anatomy of Vertebrates." Three hours weekly with extra laboratory work.

BOTANY.

J. M. READE, Professor.
W. C. NANNEY, Assistant.
F. C. WARD, Assistant.

A. **Plant Life.** This is a brief course arranged for one-year students and is open to them only. It is designed to be introductory to practical work in horticulture and agronomy.

1. **Elementary Botany.** This is the first regular course open to matriculates. It is required of all four-year students. In character it is introductory to the general subject, dealing with a range of topics but not omitting what is fundamental in the structure and biological relations of familiar plants. Two lectures and two laboratory periods per week through the year.

Other courses in Bacteria, Fungi, Physiology, Ecology, Genetics, and Plant Diseases, open to students in agriculture, are described on page 107.

RHETORIC AND ENGLISH LITERATURE.

R. E. PARK, Professor.
S. V. SANFORD, Junior Professor.
S. M. SALYER, Instructor.

1. **Composition and Rhetoric.** Detailed study and practice in construction and kind of composition. This course will involve continual practice in writing and some work in rhetoric analysis. Lectures, themes, daily exercises. Required of Freshmen. Three hours a week. *Professor Sanford* and *Mr. Salyer.*

2. **English and American Literature.** The principles of literary criticism and the practical applications of these principles to masterpieces of authors studied with reference to (1) elements of literature, (2) species of literature, (3) historical development. The object of this course will be to give to the student a general view of the history and development of literature, with more detailed knowledge of certain periods. Throughout the course much attention will be devoted to the writing of essays as a means of training the student to appreciate and to express his appreciation of the literature studied. Required of Sophomores. Three hours a week. *Professor Park* and *Mr. Salyer.*

ROMANCE LANGUAGES.

J. LUSTRAT, Professor.
W. T. TURK, Instructor.

French.

1. **French 1** is a course for beginners who are conditioned in French and wish to substitute both French and German for Greek, and also for agricultural and engineering students who do not offer language for entrance conditions.

The course consists of careful drill in pronunciation, the rudiments of grammar, the study of regular and irregular verbs, the inflection and use of personal pronouns, the rudiments of syntax, dictation, easy exercises of translation from English into French, conversation and the reading of about 275 duodecimo pages of easy prose. Three hours per week.

2. **French 2** is the continuation of course "1," It will comprise the reading of about 400 pages of easy modern prose, constant practice in translation into French of easy English prose, dictation, short drill in grammar and syntax, full study of all irregular verbs, and conversation. Three hours per week.

GERMAN.

JOHN MORRIS, Professor.
M. D. DuBOSE, Adjunct Professor.

1. **German 1** is a course for beginners who are conditioned in German and wish to substitute both German and French for Greek in the A. B. degree. This course comprises grammar and reader, with daily oral and written exercises. Three hours per week. *Professor Morris* and *Adjunct Professor DuBose.*

2. **German 2** continues the work of German 1, and completes the requirement for entrance. The course consists of grammar translation of simple texts and exercises in both speaking and writing German. Three hours per week. *Professor Morris* and *Adjunct Professor DuBose.*

HISTORY AND POLITICAL SCIENCE.

J. H. T. McPHERSON, Professor.
W. O. PAYNE, Associate Professor.
R. P. BROOKS, Associate Professor.

1. **Greek and Roman History,** with a brief review of the early oriental nations. Continued through the period of mediaeval history ending with the Treaty of Verdun. Optional for Freshmen who do not offer Ancient History for entrance. Three hours per week throughout the year. Text: Myers's "Ancient History." *Associate Professor Payne.*

2. **European History.** In this course one or more characteristic periods of European history are studied intensively. The periods considered and texts used are changed from year to year. During the present session the eighteenth and nineteenth centuries were studied, with Robinson and Beard's "The Development of Modern Europe," volumes I and II, as text. Required of Freshmen, except for those admitted to History "1," and Freshmen in the B. S. Agriculture course. Three hours weekly throughout the year. Four sections. *Professor McPherson, Associate Professors Payne* and *Brooks.*

3. **History of Georgia.** An introductory lecture course of one hour per week throughout the year, covering the more important aspects of the history of the State from colonial times to the present, Collateral reading and map work required. Required of Freshmen. *Associate Professor Brooks.*

4. **Political and Constitutional History of England.** Especial attention is paid to the development of Parliament, the Cabinet and the phases of local government—township, parish, manor, hundred, and county—with the object of laying a thorough foundation for the subsequent study of American institutions. The progress of contemporary European events is kept constantly in view. Three hours per week throughout the year. Text: Gardiner's "History of England." Four sections. *Associate Professors Payne* and *Brooks.*

DEPARTMENT OF EDUCATION.

T. J. WOOFTER, Dean.
J. S. STEWART, Professor.
L. R. GEISSLER, Associate Professor.
H. W. ODUM, Associate Professor.
T. H. MAXWELL, Student Assistant.

Note.—The following courses of the Peabody School of Education are offered in the College of Agriculture as general electives:

Psychology.

1. **Elementary Psychology.** An introductory course covering the essentials of general Psychology. Three hours a week, first and second term. *Professor Geissler.*

2. **Educational Psychology.** A study of mental development. Three hours a week, last term. *Professor Geissler.*

5. **Principles of Psychology.** A systematic study of the adult normal mind. Three hours a week throughout the year with a two-hour period of laboratory work. May be taken as a beginning course but not along with Psychology "1," and may be counted as a science in group "2." *Professor Geissler.*

6. **Experimental Psychology.** An advanced course of laboratory work and conferences, the equivalent of a four-hour credit through-

out the year. Prerequisites, Psychology "1," or "5," May be counted as a science in group "2," provided that Psychology "5" has not been counted as a science. *Professor Geissler.*

7. **Systematic Psychology.** A Graduate Course. See Graduate School.

11. **Applied Psychology.** A Graduate Course. See Graduate School.

Philosophy.

3. **Logic.** A study of both deductive and inductive logic. Three hours a week first half year. *Professor Woofter.*

4. **Ethics.** A study of human conduct. Three hours a week second half year. *Professor Woofter.*

8. **History of Philosophy.** A study of the movements of thought and of great thinkers of the world. Three hours a week first term. Senior or graduate course. *Professor Odum.*

9. **Social Philosophy.** A study of inductive sociology and social philosophy. Three hours a week, second and third terms. *Professor Odum.*

Education.

1. **History and Principles of Education.**

a. History of education. Three hours first half year.

b. Social principles of education. Three hours second half year. *Professor Odum.*

2. **Educational Psychology.** A study of mental development. Three hours a week, second half year. *Professor Geissler.*

4. **Secondary Education.** A study of the American high school and a comparison with secondary schools in leading foreign countries. Three hours a week throughout the year. *Professor Stewart.*

5. **Educational Sociology.**

a. Elementary Sociology. Three hours a week first term.

b. Rural Sociology. Three hours a week second term *Professor Odum.*

6. **Vocational Education.** Special attention to agricultural education. Three hours a week third term. *Professor Odum.*

9. **General Sociology.** A study of inductive sociology and social philosophy. Three hours a week, second and third terms. *Professor. Odum.*

10. **Philosophy of Education.** A graduate course, open to Seniors by special permission. Probably not given in 1914-'15.

17. **Educational Sociology.** A graduate course. See Graduate School.

18. **Problems of Rural Life and Education.** A graduate course. See Graduate School.

GEOLOGY.

Vacant.*

1. **General Geology.** Three hours per week, second half-year. The course of instruction is at first a general one, embracing the study of the distinguishing properties of minerals and common rocks, the decay of rocks and the formation of soils. Following this is a more extended course of Structural, Dynamical and Historical Geology.

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*Temporarily in charge of the professor of Chemistry.

MILITARY SCIENCE AND TACTICS.

W. R. KENDRICK,
17th U. S. Infantry, Commandant of Cadets.

In accordance with the provisions of the Land Grand Act, military exercises are regularly held in this College. Attendance is compulsory for members of the Freshman, Sophomore and Junior classes, and the students in the one-year course in Agriculture, except when excused by the surgeon of the Corps of Cadets.

The uniform consists of a coat of standard Charlottesville gray cloth; winter trousers of same material, with stripe one inch wide; and blue cap. The uniform costs about $15.55. For spring use white duck trousers, khaki trousers and blue shirt, leggins and hat are required, costing about $5.50.

Practical instruction is given three hours each week, covering the following subjects: Infantry Drill Regulations; Field Service Regulations; Manual of Guard Duty; Firing Regulations for Small Arms; Artillery Drill Regulations, partial.

Theoretical instruction, two hours each week, for commissioned and non-commissioned officers, is given in portions of the above subjects covered by the practical instruction, and is supplemented by lectures. One hour each week of theoretical instruction is required of Freshmen.

ONE YEAR COURSE

This course commences at the opening of the fall session and continues throughout the collegiate year. The purpose of this course is to provide suitable instruction for those who can only remain in college for one year. An effort has been made, therefore, to condense the work as much as possible, provide a correct scientific foundation and yet make the instruction of a very practical nature. An outline of the one-year course follows. The schedule indicates the number of hours required in each subject and the amount of time devoted to class-room and laboratory work. Notice that the laboratory instruction has been emphasized as this is considered the best way of demonstrating the value of applied science to the solution of the problems of the farmer. Students entering this course who are capable of carrying the Freshman Mathematics for English may be permitted to do so upon the approval of the President of the College.

ONE-YEAR COURSE.

First Term.	Hours.	Lab. Periods.
English	3	--
Arithmetic	3	--
Cereals	2	--
Cereal Judging	--	1
Soils	3	--
Iron and Wood Work	--	3
Horticulture	3	1
Breeds and Breeding	3	2
Botany	3	--
Veterinary Medicine	3	--
	23	7

Second Term.		
English	3	--
Arithmetic	3	--
Cotton and Cotton Grading	3	1
Soil Fertility	3	--
Farm Machinery	--	1
Horticulture	3	1
Dairying	1	2
Feeds and Feeding	3	1
Farm Management	2	--
Veterinary Medicine	2	1
	23	7

Third Term.

English	3	--
Farm Accounts	3	--
Grass and Forage crops	3	1
Chemistry	3	--
Plumbing and Pipe Fitting	--	1
Horticulture	3	1
Farm Buildings	--	1
Practice Work Animal Husbandry	--	1
Surveying	3	1
Forestry	2	1
Veterinary Medicine	2	--
	23	7

AGRONOMY. (1-year course).

Cereals and Cereal Judging. The history, use and cultivation of the different cereals is studied. Especial attention is given to seed selection as influencing the yield of farm crops. A study of the various cereals, especially corn, is made by use of the score card. First term. Two 1-hour recitations and one laboratory period.

Farm Management. An examination of the various business methods employed on different classes of farms is first undertaken. Special attention is given to systematizing the work and determining the effect of various rotations on the maintenance of fertility. A stereopticon is used to show how various kinds of farms should be arranged so as to conduct the business with the greatest economy.

Grass and Forage Crops. A study is made of the various grasses adapted to this state that can be utilized to the best advantage for pasturage and hay. The uses of the forage crops, especially the legumes, are given considerable attention. Methods of growing and preserving silage are considered at length, as this is undoubtedly the best form for preserving forage crops in the South.

Soils. A study of the physical properties of soil is made, and the effect of good and poor mechanical conditions on crop production is demonstrated. Methods of improving the physical conditions are studied. Special attention is given to the water-holding capacity of the soil, and the best methods of conserving soil moisture. First half year. Three 1-hour recitations.

Soil Fertility. The different fertilizing ingredients and their function in plant growth will be discussed. Methods of mixing fertilizers and determining the formulas best adapted to different soils

are studied. The effect of rotation of crops on soil fertility and the draft of the different crops on the soils also receive attention. Second half-year. Three 1-hour recitations.

COTTON INDUSTRY. (1-year course).

Emphasis is laid on the importance of seed selection. A study of types of plants with special reference to their yielding capacity is made, and the conditions affecting length, strength, uniformity, quality and quantity of fiber. Some attention of seeds given to combing and grading cotton, and all varieties are studied in the laboratory. There is a complete set of grades of long staple and upland lint cotton in the laboratory for inspection and comparison, and students are required to grade by the samples, after the basis of grading has been pointed out. Second term. Three 1-hour recitations. One laboratory period.

ANIMAL HUSBANDRY. (1-year course).

Breeds and Breeding. A practical course will be given in the study of domesticated animals, and a consideration of the fundamental laws underlying their production. Three 1-hour recitations.

Dairying. In this course lectures will be given on the principles of modern dairying and on the manufacture of butter, cheese and other products. Practice work in the operation and repair of dairy machines will be required of all students. The use of the Babcock test and other apparatus for the detection of adulteration of milk will be fully explained. One lecture and two laboratory periods. Second term.

Feeds and Feeding. In this course a study of the various feeding stuffs will be taken up. The balancing of rations and their adaptation for maintenance, development of bone and muscle, production of milk and butter, and for maintaining and fattening farm animals will be discussed and explained. Three 1-hour recitations and one laboratory period. Third term.

Stock Judging. Scoring, judging and classifying the various classes of farm live stock will form an important part of this course. After the student has become proficient in the use of the score card, work will be given in comparative judging and show-ring placing. The standard of excellence as established by the several breeders' associations will also be given some attention. First term. Two laboratory periods.

HORTICULTURE. (1-year course).

Orchards. A study of orchards as to location, site, exposure, cultivation, fertilization, planting, pruning, spraying, thinning, harvesting and marketing. Book to be used, "Principles of Fruit Growing,"

by L. H. Bailey. Three 1-hour lectures and one laboratory period per week. First term.

Propagation and Pruning. A study of budding, grafting, and other methods of plant manipulation and propagation, with a course in the principles and practice of pruning. Three lectures and one laboratory period per week. Second term.

Small Fruit and Trucking. A course in the management of small fruit plantations and truck gardens, following much the same order as the orchard course. Particular attention will be given to the construction and management of hot beds as well as to the principal small fruit and vegetable crops of the section. Three lectures and one laboratory period per week. Third term.

FARM MECHANICS. (1-year course).

Wood Work. This will include the care and use of wood working tools. It will be made as practical as possible. The majority of the exercises will consist of the construction of articles that will be needed on the farm, such as gates, fences, wagon beds and other farm conveniences. First terms. Two laboratory periods. Alternates with forge work.

Forge Work. This course will include welding and shaping of iron and handling of steel. Considerable attention will be paid to the making and tempering of small hand tools. A student after taking this course should be able to do all of the ordinary repairs of farm machines and other blacksmithing that will be necessary in farm work. First term. Two laboratory periods per week. Alternates with wood work.

Farm Machinery Judging. A study of the principles of construction and operation will be made. Considerable time will be given to studying the individual parts of the different farm machines. Considerable time will be devoted to motors, especially gasoline and steam engines. Third term. Two laboratory periods.

Farm Buildings and Fences. The strength and adaptability of the materials available for construction will first be determined. Principles of construction will be studied, and considerable time will be given to planning the different farm buildings with especial regard to convenience and sanitation. The use of concrete on the farm and principles of concrete construction will be demonstrated. Laboratory practice will constitute an important part of the work.

Farm Engineering. Instruction will be given in the use of the instruments necessary in surveying farm lands and terracing. Some time will be given to the location of farm buildings, roads, terracing and leveling.

Plumbing and Pipe Fitting. A short course in plumbing and pipe fitting will be given in connection with farm building. It will

consist of the location and planning of the water supply and drainage away from the home, and the proper laying out of a perfectly sanitary system of plumbing for buildings. The proper assembling and selection of the material needed for a complete job, and the calking of all joints, etc., will be fully studied.

VETERINARY SCIENCE. (1-year course).

1. Consists of lectures in the anatomy and physiology of the horse, with brief notices of the variations occurring in the other farm animals. Lectures on Materia Medica cover the more commonly used drugs and medicines, paying particular attention to the action and dosage of the drugs. First term. Three hours per week.

2. Consists of lectures on Theory and Practice and Surgery; deals with the most common diseases of the horse and cow, the minor operations that are performed on these animals, and the care of surgical and accidental wounds. Second term. Two hours per week.

3. Consists of free clinics held at the Veterinary Hospital. One hour per week. Second and third terms.

4. Consists of lectures on Obstetrics and Dentistry. Two hours per week. Third term.

AGRICULTURAL CHEMISTRY. (1-year course).

This course is planned to prepare the student for intelligent study of the chemistry of soils, fertilizer and foods. At first the elements and compounds most important to agriculture will be taken up. The composition of farm crops, and the application of chemistry to plant and animal life will be studied. Text, "Agricultural Chemistry," by Hart and Tottingham. This course consists of three lectures during third term.

FORESTRY. (1-year course).

A study of forestry as applied to farm woodlands. How to secure a stand of timber, how to thin, to protect, and harvest the forest crop. Second half-year. Two 1-hour lectures and one 1-hour practice period.

THREE-MONTHS OR WINTER COURSE IN AGRICULTURE.

Short courses of instruction in agriculture and related subjects are offered for the benefit of those who are engaged or expect to engage in farming, and yet who are so situated that they cannot undertake a full college course of study. This course is given during the winter when work is least pressing and the time can best be spared. The course consists principally of the regular work provided during the winter term of the one-year course, with such additional elective subjects as the student finds he can conveniently carry after consulting the president of the College.

Those desiring to take this course can familiarize themselves with the nature and character of the work by referring to the schedule of the one-year course for the second term. Considerable extra work may be taken if desired. Certain subjects may also be dropped and others elected to meet the wishes of the student. Those intending to take this course of instruction are urged to write to the College authorities some time in advance so that suitable arrangements can be made for them.

SHORT COURSES FOR FARMERS

In Cereal Production, Cotton Industries, Live Stock Farming, Horticulture. This course is of ten days duration, beginning Tuesday, January 4, and ending Friday, January 15, 1915. It is open to all farmers, is free except for a registration fee of $1.00, and no examination is required.

The object of this course is to present essential facts in a practical form, with plain language, and make them easy of application to every-day work on the farm.

The lectures offered in the several short courses are summarized and presented to the student on mimeographed paper. When the course is over each pupil will have fifty lecture sheets, comprising a ready reference book on the subjects which he has studied.

This course is offered in midwinter at the beginning of a year as the most suitable time for getting away from the farm and as the logical time to plan the year's program for the farm under the guidance of experts at the College.

Rapid changes in agricultural activities are necessitated by the coming of the boll weevil. The active farmer who can not cease work long enough to take a college course, will find the short course a great assistance in helping him into other lines of farming than he is accustomed to.

No other way is open to the farmer for getting so quickly, and at such low cost the information that the agricultural exegencies of Georgia require, than that presented by the Short Course of the College of Agriculture.

COURSES IN COTTON INDUSTRIES. (Short course).

Ten Lectures on the Soil, including a discussion of origin, character, composition and utility for crop production.

Ten Lectures on Fertilizers, including a discussion of the essential elements of plant food and methods of purchasing, mixing and applying these various constituents to the soil for the purpose of producing maximum crops at a minimum cost.

Five Lectures on Cotton Cultivation. These include methods of seed selection which may be adopted and successfully practiced by farmers for the improvement of the quality of the staple.

Five Lectures on Cotton Diseases. The principal diseases affecting cotton, the causes so far as known, and the best methods of combatting and eradicating them are discussed.

Five Lectures on Cotton Insects. In these lectures the history, characteristics and the best methods of controlling the depredations of the various insects attacking the cotton plant are discussed.

Five Lectures on the Chemistry of Cotton By-Products. These lectures will deal with the preparation, history and commercial uses of such by-products as cotton seed oil, paper, cellulose, gun cotton, artificial silk and hair, and viscose which is used in making artificial leather and building material. Samples of the various by-products are used for illustrative purposes.

Five Lectures on Machinery. The different forms of plows, cultivators and seeders which may be utilized so as to economize labor and increase the efficiency of soil cultivation are considered.

Ten Demonstrations in Cotton Grading. In this course the student has an opportunity to handle and grade ten or more samples of cotton each day just as the operation is performed on the warehouse floor. Cotton grading can be successfully taught and made the means of saving several millions of dollars annually to the farmers of Georgia.

Three Lectures on Cotton Marketing. These lectures include a discussion of the business of receiving, handling and shipping cotton.

The necessity for instruction in cotton industries will be made apparent by the fact that there is a loss in the value of the staple as nature produces it and as placed upon the market, of between ten and twenty millions of dollars every year in Georgia. This loss is largely avoidable and will be reduced materially when the handling and grading of cotton is made a part of the knowledge of the farmers in all parts of the state.

COURSE IN CEREAL PRODUCTION. (Short course).

This course is broader than its name implies, and includes a consideration of seed selection and crop rotation—two matters of vital importance to the welfare of Georgia agriculture. The widespread interest in increasing the yield of corn and growing a greater variety of cereals constitute the primary reasons for offering this course. Experiments in corn breeding and cereals production have been conducted in the demonstration field for several years, and furnish data of vital importance. The course is as follows:

Five Lectures on Insects Injurious to Grain. A study of the life history of the more injurious insects is made with suggestions as to methods of control.

Ten Lectures on Seed Selection. All cereals may be greatly improved both as to yield and quality of grain through seed selection. Experience shows that the seed used in Georgia should be produced at home. The data obtained from the College demonstration field is used as the basis of instruction.

Ten Lectures on Crop Rotation. Crop rotation is undoubtediy a means for higher production per acre, as well as a means of having more than one crop for market. Different systems of rotation will be studied, also the influence of the rotation on general farm work. Special attention is given to cover crops and their use in the state.

Ten Demonstrations in Cereal Judging. Cereal judging includes a systematic study of varieties by the score card, by actual measurement and scales, as well as germination tests. Students taking the course in cereal production also elect fertilizers, soils and farm machinery.

COURSE IN LIVE STOCK FARMING. (Short course).

Georgia farmers have more than fifty million dollars invested in live stock. At least one-tenth of the value of the cotton crop is put into supplying live stock obtained largely from other states that should be raised within the borders of the state. On this account, a ten-day course of instruction for farmers who desire to specialize in live stock farming, has been arranged at the College. The course is as follows:

Ten Lectures on Feeds and Feeding. This course reviews the courses of feeding stuffs available for the maintenance of live stock, special emphasis being laid on the value of cotton seed and its by-products, and all other materials produced in the state which can be utilized to good advantage in animal nutritition.

Ten Lectures on Breeds and Breeding. In this course the origin, history and development of the various breeds of horses, cattle, sheep and swine adapted to Georgia are considered.

Ten Lectures on Diseases of Farm Animals. This course includes a review of the methods used to control and eradicate contagious diseases of live stock, including United States quarantine regulations concerning the transportation of animals affected with contagious diseases and disease-producing parasites; a consideration of some of the more common diseases and ailments of farm animals, together with means of prevention and methods of treatment.

Five Clinics are held to demonstrate the methods of administering hog cholera serum and other biological products, how to ex-

SCHEDULE OF RECITATIONS—SHORT COURSE FOR FARMERS.

January 4th to 15th, Inclusive, 1915.

	Tuesday, Jan. 5th.	Wednesday, Jan. 6th.	Thursday, Jan. 7th.	Friday, Jan. 8th.	Saturday, Jan. 9th.	Monday, Jan. 11th.	Tuesday, Jan. 12th.	Wednesday, Jan. 13th.	Thursday, Jan. 14th.	Friday, Jan. 15th.
9:00 to 9:55	Fertilizers	Fertilizers	Fertilizers	Fertilizers	Fertilizers	Fertilizers	Fertilizers	Fertilizers	Fertilizers	Fertilizers
10:10 to 11:05	Soils	Soils	Soils	Soils	Soils	Soils	Soils	Soils	Soils	Soils
11:05 to 12:00	Farm Machinery Diseases of Farm Animals	Farm Machinery Diseases of Farm Animals	Farm Machinery Diseases of Farm Animals	Farm Machinery Diseases of Farm Animals	Farm Machinery Diseases of Farm Animals	Diseases of Farm Animals Varieties of Fruit Insects Injurious to Grain	Diseases of Farm Animals Varieties of Fruit Insects Injurious to Grain	Diseases of Farm Animals Varieties of Fruit Insects Injurious to Grain	Diseases of Farm Animals Varieties of Fruit Insects Injurious to Grain	Diseases of Farm Animals Varieties of Fruit Insects Injurious to Grain
(1) 12:00 (2) to (3) 12:55 (4)	The Cotton Plant Feeding Farm Animals Diseases of Fruit Seed Selection	The Cotton Plant Feeding Farm Animals Diseases of Fruit Seed Selection	The Cotton Plant Feeding Farm Animals Diseases of Fruit Seed Selection	The Cotton Plant Feeding Farm Animals Diseases of Fruit Seed Selection	The Cotton Plant Feeding Farm Animals Diseases of Fruit Seed Selection	Cultivation of Cotton Feeding Farm Animals Insect Enemies of Fruit Seed Selection	Cultivation of Cotton Feeding Farm Animals Insect Enemies of Fruit Seed Selection	Cultivation of Cotton Feeding Farm Animals Insect Enemies of Fruit Seed Selection	Cultivation of Cotton Feeding Farm Animals Insect Enemies of Fruit Seed Selection	Cultivation of Cotton Feeding Farm Animals Insect Enemies of Fruit Seed Selection
(1) 12:55 (2) to (3) 1:50 (4)	Diseases of Cotton Breeds and Breeding Orchard Management Crop Rotation	Diseases of Cotton Breeds and Breeding Orchard Management Crop Rotation	Diseases of Cotton Breeds and Breeding Orchard Management Crop Rotation	Diseases of Cotton Breeds and Breeding Orchard Management Crop Rotation	Diseases of Cotton Breeds and Breeding Orchard Management Crop Rotation	Insect Enemies of Cotton Breeds and Breeding Orchard Management Crop Rotation	Insect Enemies of Cotton Breeds and Breeding Orchard Management Crop Rotation	Insect Enemies of Cotton Breeds and Breeding Orchard Management Crop Rotation	Insect Enemies of Cotton Breeds and Breeding Orchard Management Crop Rotation	Insect Enemies of Cotton Breeds and Breeding Orchard Management Crop Rotation
(1) (2) 3:10 to (3) 5:00 (4)	Cotton Grading Stock Judging Clinics or Poultry Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging or Clinics Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging or Clinics Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging Clinics or Poultry Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging Clinics or Poultry Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging or Clinics Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging Clinics or Poultry Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging or Clinics Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging Clinics or Poultry Spraying and Pruning Cereal Judging	Cotton Grading Stock Judging or Clinics Spraying and Pruning Cereal Judging

Registration Day is Monday, January 4th, 1915. Bear this date in mind.

amine horses for soundness, together with a consideration of the seriousness of various blemishes and unsoundness from an economic standpoint.

Five Demonstrations in Stock Judging. For the student electing the live-stock course, practical work is given in the afternoons in scoring farm animals, as well as actual work in show-ring placing. Students taking the course in live stock farming also elect fertilizers and soils.

COURSE IN HORTICULTURE. (Short course).

Many persons are intensely interested in securing more definite knowledge concerning orchard management. This is especially true since the wonderful possibilities of apple production in north Georgia have become more generally appreciated. To meet this public demand a specialized course in horticulture has been provided.

Five Lectures on Varieties of Fruit. In this course will be given a discussion of the varieties of apples, pears, peaches, etc., as recommended for commercial culture in the various sections of the state by the Horticultural Society.

Ten Lectures on Orchard Management. These will include discussions of site, location, choice of plants, planting, tillage, cover crops, fertilization, pruning, thinning, frost, spraying, picking, packing and selling.

Five Lectures on Diseases of Fruits. Brown Rot, Apple Scab, Pear Blight, and other diseases incident to the culture of the tree fruits in Georgia will be considered.

Five Lectures on Insects of Fruits. The Codling Moth, Plum Curculio, Peach Borer and other insects incident to the culture of tree fruits in this state will be discussed.

Ten Demonstrations in Spraying and Pruning, consisting of practice in mixing and applying sprays, fighting frost, pruning trees, etc.

Students taking the course in horticulture will also elect fertilizers, soils and farm machinery. The schedule of recitations for these short courses is shown on another page and is self-explanatory.

ANNUAL MEETINGS OF FARMERS' ORGANIZATIONS

The Georgia Dairy and Live Stock Association, the Georgia State Horticultural Society, and the Georgia Breeders' Association hold their annual meetings at the College in January. An attempt is made to reach and serve the interests of all classes of citizens engaged in agriculture. The attendance continues to grow. Since those engaged in horticulture or dairying are often interested in both as well as general farming, the joint meeting of the three

associations presents many advantages to the members and saves both time and money. By meeting at the College, these organizations are afforded an opportunity to study the progress made in agricultural science during the year and to confer with experts. The student body is greatly benefited by the opportunity afforded for personal contact with practical men who are making a success of the work in which they are engaged. Thus several important purposes are served through the arrangement of a joint conference of the organizations chiefly concerned in promoting the welfare of Georgia farmers.

The advisability of holding such a general conference is shown by the fact that the fertility of our lands is decreasing, the depredations of insect pests and plant diseases are becoming greater each year, and the purchase and use of fertilizers more abundant. How shall the farmer obtain the needed information with reference to these matters save through some such clearing house as the State College of Agriculture?

Education measures the success and progress of a nation. We have neglected agricultural education in America because of our marvelous natural resources. But nature has rebelled, and now we must inaugurate crop rotations and give greater attention to the development of live stock.

BOYS' AND GIRLS' SHORT COURSES.

Short courses of ten days duration are held during the first part of January each year for boys and girls who have won scholarships in the contests of the corn and canning clubs. The scholarships which are offered by educational and business interests, provide all necessary expenses including railroad fare. The boys and girls are constantly under the care and direction of county agents from the time they leave home until they return.

The boys' course consists of talks on fertilizers with demonstrations in home-mixing; the soil types of Georgia; best methods of crop rotation; how to select good seed; the types and breed of live stock and how to judge them with score card; improved farm machinery, the boys being required to handle same; insect pests, how to prevent them; pork production, including study of best breeds, feeding, housing, pasture, etc.; poultry raising; animal physiology; study of the College farm methods.

The girls' course consists of poultry raising on which stress is laid; home vegetable gardening; treating of various garden crops; cooking and food study in which the value of various foods is considered in forming a complete diet, and in which are illustrated by actual practice of the most healthful methods of food preparation;

farm dairying, telling how to produce the highest class dairy products that will command the best price on the market.

CO-OPERATION.

The College of Agriculture enters into cordial coöperation with the various branches of the United States Bureau of Agriculture as represented by the farmers' demonstration work, the boys' corn club work, the girls' club work, dairying, soil surveying, and the pig clubs, the state headquarters of which are located at the College. Effective coöperation with the State Superintendent of Public Instruction and through him with the county school superintendents and individual teachers in organizing and maintaining the boys' and girls' clubs, is obtained.

Close coöperation is maintained with the State Department of Agriculture including its distribution of hog cholera serum and work in tick eradication. Coöperation exists between the College and the State Experiment Station, the State Board of Entomology, the Georgia Dairy and Live Stock Association, the Georgia State Horticultural Society, the Georgia Breeders' Association, the State Fair Association and other fair associations, farmers' organizations in general, boards of trades, coöperative marketing movements and other organizations where the services of the College are accepted.

More than $65,000 is being donated annually by business men, commercial and industrial organizations of Georgia for carrying on the extension demonstration work of the College.

EXTENSION TEACHING

It is the purpose of the College of Agriculture to aid all educational activities which are being carried on in the state. The fulfillment of this purpose is one of its greatest obligations to the State and every effort will be made to further the work of extension teaching. Two great ends are to be subserved by work of this character. First, the sytematizing of the educational activities of the state and the raising of these to a higher level of efficiency. Second, the dissemination of useful knowledge which has accumulated in recent years, but is not as generally appreciated as it should be, and which cannot be brought to the attention of adults and those remotely situated from the College save through extension agencies. Recognizing the importance of this character of work, the General Assembly of Georgia during the annual session 1913, reappropriated $40,000 to the State College of Agriculture to be used for extension teaching, providing that $15,000 of the above amount be used for the organization of boys' and girls' clubs.

In accordance with this action of the legislature, the Board of Trustees has organized the work of the several departments constituting the College, along lines which permit of carrying on their proper share of extension work in the most efficient manner possible. Through this office the extension schools, educational trains, farmers' institutes and miscellaneous meetings are largely organized and directed. Every member of the college staff gives some of his time and effort to extension activities.

The department of agronomy is utilizing a series of test plats on different type soils of the state to secure data concerning their principal defects, and what forms of fertilization and crop rotation are best adapted to build them up. This department maintains a twenty-acre field for the purpose of carrying on investigations relative to corn and cotton breeding, crop rotations, fertilizers and soil management. This information is invaluable to the people of the state and is distributed in bulletin form at the meetings held by the extension service.

The traveling field representatives of the department of agronomy are also engaged in advising the farmers relative to the improvement of certain strains of corn and cotton which are being developed through seed selection or hybridization.

The department of agricultural chemistry has undertaken a physical survey of several counties and is making analyses of all the type soils found therein. A close coöperation of necessity exists between the departments of agronomy and agricultural chemistry in this work, which is of the most fundamental character, since it means ascertaining the soil deficiencies and determining the methods by which these can be supplied. Several men are employed by this division.

The department of animal husbandry is carrying on work along several lines. First, it is coöperating with farmers in the purchase and dissemination of improved breeds of live stock so that breeding centers may be established in a number of communities. Secondly, an expert is advising dairy farmers as to the best types of barns and silos to erect, and supervising the feeding and management of a number of dairy herds as well. On the College farm more than 200 head of live stock are maintained for the purpose of securing data and information to be distributed in bulletin form and at extension schools and other meetings throughout the state.

An instructor in poultry husbandry has charge of this special line of work, and is prepared to advise with all interested in this important industry.

The department of horticulture is carrying on extension work in connection with the peach, apple, pecan and trucking industries.

Demonstrations in spraying, pruning and orchard heating and other practical orchard problems are given.

The department of farm mechanics assists farmers in the preparation of plans for farm houses, barns and other outbuildings necessary on an up-to-date farm.

The department of cotton industry is distributing seed of the Sunbeam variety which is proving to be highly resistant to anthracnose, and is engaged in investigating many vital problems associated with the more economic production of cotton in the state.

The department of veterinary medicine is manufacturing hog cholera serum. It is possible through the use of the serum to largely control the destruction wrought by hog cholera. Its importance, therefore, needs no further emphasis. This department is also coöperating in every possible way with those agencies which are endeavoring to eradicate the cattle tick, and to control many diseases which cause serious loss to Georgia farmers.

Some of the most effective work done by the College is through the organization of the Boys' Corn Clubs and Girls' Canning Clubs. Departments are maintained for this service, and the interest has grown to such an extent that six special agents with headquarters at Atlanta, Savannah, Augusta, Tifton, Rome and Columbus, are maintained in the field. Georgia is the only state to provide local agents for the inspiration and redirection of the efforts of her boys and girls. This constitutes one of the most important lines of activity being carried on through the extension work of the College.

The various departments enumerated act as a clearing house of agricultural information for Georgia farmers.

During the year, 949 meetings were held, and 218,063 people reached exclusive of those served by county agents or through correspondence or by distribution of bulletins. Over 188,299 miles of travel were entailed to render this service. The work includes the organization of 7 week-long agricultural extension schools attended by 4,710 people; 109 farmers' institutes attended by 31,778 people; 643 corn club and farm demonstration meetings with an attendance of 83,792 people; 137 girls' canning club meetings with an attendance of 10,274 people; 5 teachers' institutes, attended by 650 teachers 46 miscellaneous meetings, attended by 11,859 people. In addition about 75,000 people viewed the educational exhibits of the College at the Macon and Augusta fairs and over 300 people attended the meetings of the various state organizations held at the College.

It is believed that one of the most efficient ways by which the farmers can be served is through the organization and promotion of extension schools. Seven week-long extension schools were held during the spring of 1914, at the following places: Pine-Log,

Lumpkin, Edison, Ashburn, Nashville, Hartwell and Jasper. Considering that seven days of consecutive lectures were given in each community the total attendance of 4,710 shows the appreciation of the farmers for this class of extension teaching. The people of the above communtiies paid most of the expenses of the schools, including hotel expenses of the lecturers, hall rent, light, heat, livery and part of the railroad fares. Many communities were refused these schools on account of lack of funds and lack of sufficient men to do the work.

The response to this work has been most gratifying, and judging from the expressions of those in attendance, it is the most satisfactory method of reaching farmers that has yet been devised. The demand for meetings has been such as to make it clear that the present appropriation is insufficient to meet the requirements of the work. These schools are conducted in a thoroughly practical manner. Among the topics discussed are the mixing and application of fertilizers, soils and soil cultivation, tillage and tillage implements, the selection and improvement of seed corn and cotton, diseases of live stock, dairying, fruit and truck problems, spraying and orchard management, the feeding and care of live stock. Demonstrations constitute an important feature of these schools. For instance, a clinic is held at which all the sick animals brought in are treated by a competent veterinarian. There are also spraying, dairy and seed testing demonstrations. Charts, models and other materials are carried along and a number of the lectures are illustrated. In this way the subject matter is presented in a graphic and practical manner, so practical indeed that many farmers who have attended the schools found it feasible to put the suggestions made by the instructors into practice with great benefit. The value of a system of extension teaching of this character can never be accurately estimated, but those who have seen the marvelous improvement in farm practice which has followed in the wake of limited effort in this direction realize fully what a systematic extension bureau may accomplish in stimulating an interest in better methods of farming.

Another feature emphasized by the extension department is the organization of boys' and girls' industrial clubs. The boys are being encouraged to grow corn under the specific rules and regulations laid down by the College, and the girls to organize canning clubs and to take a greater interest in cooking and sewing. In this work the extension department has had the sympathetic coöperation of the great majority of the county school commissioners, the Farmers' Union, the State Department of Agriculture, business organizations and a number of congressmen. Liberal prizes have been offered by a number of organizations and individuals. Through the organization of these clubs the attention of the boys and girls

is being directed to a more thorough appreciation of the possibilities of the soil, the need of using fertilizers and acquiring a knowledge of plant and animal life. In other words, agricultural instruction of a fundamental character is being introduced into the schools of the state and the fact that the boys have often been able to produce 100 bushels of corn per acre, has demonstrated the great economic value of work of this character.

Speakers are sent from the College to address farmers' gatherings or to discuss subjects of special interest to a given community. The officers of the College are working in coöperation with the county school commissioners, and lecturers are sent to teachers' institutes for the purpose of discussing ways and means by which instruction in agriculture in the common schools as provided for by law, may be inaugurated. No service can be rendered the people of the state at this time more important than that of fostering the teaching of the underlying principles of agriculture in the public schools.

Another feature of extension work which the College is fostering is correspondence with farmers. Thousands of letters are annually answered, giving definite information relative to fertilizers, soils, crops, care and management of live stock, orchards and gardens. Every farmer in the state is invited to take advantage of the free information afforded by correspondence. In this way at the cost of a two-cent stamp, any individual may obtain information worth a great deal of money to him.

The College stands ready to assist every organization and individual entitled to its service.

FARMERS' INSTITUTES

One hundred and nine farmers' institutes were held during the past year at the following places: Hazlehurst, Hahira, Camilla, Baxley, Tifton, Meigs, Jesup, Nashville, Cairo, Blackshear, Moultrie, Donalsonville, Homeland, Pidcock, Blakely, Kingsland, Ashburn, Edison, Brunswick, Ocilla, Shellman, Pembroke, Fitzgerald, Fort Gaines, Reidsville, Cordele, Dawson, Lyons, Rochelle, Stillmore, Eastman, Dink, Cochran, Preston, Millen, Perry, Lumpkin, Springfield, Vienna, Cusseta, Sylvania, Oglethorpe, Buena Vista, Wadley, Knoxville, Ellaville, Thomaston, Tennille, Woodland, Wrightsville, Gray, Hamilton, Dublin, Forsyth, Greenville, Jeffersonville, Meansville, LaGrange, Milledgeville, Locust Grove, Franklin, Sparta, Jackson, Dearing, Carrollton, Waynesboro, Conyers, Douglasville, Harlem, Covington, Fairburn, Monroe, Madison, Dallas, Monticello, Danielsville, Cedartown, Eatonton,, Jefferson, Summerville, Lexington, Gainesville, LaFayette, Elberton, Cumming, Ringgold, Hartwell, Duluth, Dalton, Carnesville, Jasper, Acworth, Ellijay, Clayton,

Wilkes, Cleveland, Blairsville, Lincolnton, Dawsonville.

Institutes were offered to the remaining counties, but for various reasons satisfactory arrangements could not be made for the meetings.

From one to three speakers were sent to the following places where either farmers' meetings or educational rallies were held; if more than one speaker was sent the number is indicated in brackets:

Jefferson (2), Valdosta, Hamilton, Baxley, Atlanta, Elberton, Macon, Commerce, Covington, LaGrange, Reidsville, Mt. Berry, Clarkesville, Thomson, Bainbridge, Buckhead, Columbus, Blackshear, Quitman, Ashburn, Cornelia, Clayton, Vidalia, Benevolence, Sumpter, Bethel, Augusta, Cairo, Hartwell, Tate, Tiner Springs.

Representatives of the College addressed teachers' institutes at the following places during the year: Cumming, Blairsville, Spring Place, Decatur, Hampton.

COUNTY INSTITUTE OFFICIALS

County	President	Secretary
Appling	G. H. Tillman, Baxley	Roy Rogers, Baxley
Baldwin	————————, Milledgeville	
Ben Hill	D. L. Martin, Fitzgerald	G. A. Drexler, Fitzgerald
Berrien	W. H. Griffin, Nashville	Mr. Watson, Nashville
Brooks	W. W. Rast, Pidcock	
Bryan	J. B. Bacon, Pembroke	E. L. Lanier, Pembroke
Bulloch	J. W. Williams, Dink	
Burke	J. Walter Hendrciks, Waynesboro	
Butts	J. J. Mapps, Jackson	S. K. Smith, Jackson
Calhoun	L. M. Kellingsworth, Edison	E. B. Fields, Edison
Camden	I. F. Arrow, Kingsland	
Campbell	Robert Tatum, Fairburn	J. W. Heed, Fairburn
Carroll	————————, Carrollton	
Catoosa	C. S. C. Bandy, Ringgold	D. Tribble, Ringgold
Chattooga	A. Wheeler, Summerville	S. C. Jones, Summerville
Charlton	Prof. Mallard, Homeland	A. H. Howard, Homeland
Chattahoochee	R. S. Hollis, Cusseta	W. H. Bagley, Cusseta
Cherokee	J. B. Keith, Canton	F. M. Bishop, Canton
Clay	R. C. McAllister, Ft. Gaines	J. W. Sutlive, Ft. Faines
Cobb	G. M. Orr, Acworth	A. F. Davenport, Acworth
Colquitt	C. W. Turner, Moultrie	Jno. W. Greer, Moultrie
Columbia	S. R. Phillips, Harlem	B. F. Mundy, Harlem
Crawford	E. L. McGee, Knoxville	C. B. Edwards, Knoxville
Crisp	J. P. Atkins, Cordele	G. A. Tarpley, Cordele
Dawson	A. W. Vandiver, Dawsonville	E. M. Fowler, Dawsonville
Decatur	J. W. Brown, Donalsonville	W. H. Vanlandingham, Donalsonville
Dodge	C. M. Methvin, Eastman	H. Miller, Eastman
Dooly	J. M. Woodward, Vienna	C. C. Lewis, Vienna
Douglas	J. G. McGee, Douglasville	W. W. Gresham, Douglasville
Early	W. W. Board, Blakely	E. S. Collins, Blakely

County	President	Secretary
Effingham	J. W. Reiser, Springfield	B. W. Cubbedge, Springfield
Elbert	V. H. Jones, Elberton	C. C. Whiteside, Elberton
Emanuel	W. R. Kemp, Stillmore	J. I. Deakle, Stillmore
Forsyth	————————, Cumming	
Gilmer	B. ~. Holden, Ellijay	J. T. Deweese, Ellijay
Glynn	J. G. Weatherly, Brunswick	
Gordon	T. Rogers, Calhoun	E. Dillard, Calhoun
Grady	J. B. Wight, Cairo	P H. Ward, Cairo
Gwinnett	H. H. Miller, Duluth	
Habersham	M. C. Gay, Clarkesville	
Hancock	H. F. Hawes, Sparta	
Hall	R. A. Stow, Gainesville	B. F. Perkle, Gainesville
Hart	A. J. McMullan, Hartwell	T. B. Thornton, Hartwell
Harris	R. L. Hasty, Hamilton	R. E. Fort, Hamilton
Heard	M. Y. Lester, Franklin	H. G. Moore, Franklin
Henry	T. J. Upchurch, Locust Grove	A. G. Combs, Locust Grove
Houston	W. C. Watson, Perry	T. W. Murry, Perry
Irwin	G. T. Young, Ocilla	F. N. Paulk, Ocilla
Jackson	W. C. White, Jefferson	K. Kinney, Jefferson
Jasper	Rufus Smith, Monticello	J. D. Lane, Monticello
Jefferson	————————, Wadley	
Jenkins	S. C. Parker, Millen	Jas. Moore, Millen
Jeff Davis	I. L. Jones, Hazelhurst	J. A. Cromartie, Hazelhurst
Jones	R. Childs, Gray	M. C. Green, Gray
Johnson	W. M. Faircloth, Wrightsville	J. L. Harris, Wrightsville
Laurens	M. S. Jones, Dublin	
Lee	A. B. Martin, Leesburg	J. R. Miller, Leesburg
Lincoln	W. C. Powell, Lincolnton	J. M. Wright, Lincolnton
Lowndes	W. W. Webb, Hahira	
Macon	J. P. Nelson, Oglethorpe	G. C. Thistlewood, Oglethorpe
Madison	W. S. Sanders, Danielsville	J. N. Griffith, Danielsville
Marion	G. W. Cook, Buena Vista	P. H. Monford, Buena Vista
McDuffie	J. J. Pennington, Dearing	D. A. Howard, Dearing
Merriwether	J. M. Barnes, Greenville	R. S. Crowder, Greenville
Milton	T. Shirley, Alpharetta	T. L. Parker, Alpharetta
Mitchell	R. B. Wingate, Camilla	W. Adams, Camilla
Monroe	T. G. Scott, Forsyth	R. S. Fort, Forsyth
Morgan	C. G. Bradley, Madison	
Murray	J. C. Ellis, Eton	E. H. Beck, Eton
Newton	J. W. King, Covington	Henry Odum, Covington
Oglethorpe	W. H. Faust, Lexington	
Paulding	Dr. J. R. Ritch, Dallas	B. E. Corker, Dallas
Pickens	C. H. Cox, Jasper	
Pierce	Q. A. Smith, Blackshear	E. L. Darling, Blackshear
Pike	V. L. Collier, Meansville	A. W. Hemphill, Meansville
Polk	G. E. Benedict, Cedartown	E. C. Benedict, Cedartown
Pulaski	T. D. Peacock, Cochran	T. S. Bailey, Cochran
Putnam	W. C. Wright, Eatonton	
Rabun	L. M. Chastain, Habersham	
Randolph	R. F. Crittenden, Shellman	J. L. Jay, Shellman
Rockdale	L. A. Brown, Conyers	
Schley	J. W. McCorkle, Ellaville	Victor McMichael, Ellaville
Screven	J. E. Evans, Sylvania	W. C. Howard, Sylvania
Stephens	D. B. Eskew, Toccoa	W. T. McCay, Toccoa

County	President	Secretary
Stewart	W. S. Boyett, Lumpkin	W. T. Halliday, Lumpkin
Talbot	A. G. Culpepper, Woodland	A. Bickley, Woodland
Tattnall	I. J. Smith, Reidsville	B. H. Hoover, Reidsville
Terrell	H. A. Petty, Dawson	C. T. Jordan, Dawson
Thomas	R. R. Chastain, Meigs	J. A. Chastain, Meigs
Tift	W. R. Smith, Tifton	W. H. Martin, Tifton
Toombs	W. G. Dickerson, Lyons	W. M. Carr, Lyons
Towns	J. S. Rice, Hiawassee	J. M. Jordan, Hiawassee
Troup	F. M. Longley, LaGrange	W. L. Cleveland, LaGrange
Twiggs	————————, Jeffersonville	
Turner	A. S. Bussey, Ashburn	B. T. Reeves, Ashburn
Union	E. S. Crawford, Blairsville	C. E. Rich, Blairsville
Upson	W. H. Dallas, Thomaston	H. W. Barron, Thomaston
Walton	W. L. Breedlove, Monroe	Eugene Baker, Monroe
Walker	S. M. Goodson, LaFayette	R. D. Love, LaFayette
Washington	Geo. Gilmore, Tennille	J. W. Slade, Tennille
Wayne	J. P. Shedd, Jesup	R. L. Millikin, Jesup
Webster	————————, Preston	
White	A. W. Vandiver, Cleveland	E. M. Fowler, Cleveland
Wilcox	W. W. Blalock, Rochelle	M. G. Guest, Rochelle
Whitfield	D. Puryear, Dalton	C. L. Foster, Dalton
Wilkes	J. Luke Burdette	

Those counties interested in securing a meeting for 1914 should correspond with the College at the earliest possible date, so that arrangements may be made for the meetings some time in advance. The appropriation for holding farmers' institutes was cancelled by the 1913 session of the General Assembly, so it will be impossible for the College to supply speakers for the institutes unless the county organization will guarantee to pay the expenses of the lecturers. Such applications for lectures should be made early, so that time may be had to prepare an itinerary in advance, in order to reduce traveling expenses and conserve the time of the instructors.

REGISTER OF STUDENTS, 1913-1914

MASTER OF SCIENCE IN AGRICULTURE.

Blackburn, Robert Edwin----------Athens.
Chastain, Troy Green----------Kennesaw.
Dobbs, Willis Franklin----------Athens.
Giles, John Kygress----------Athens.
Worrall, Lloyd----------Barberton, Transvaal.

BACHELOR OF SCIENCE IN AGRICULTURE.

Senior.

Asbury, Thomas Lyne----------Crawfordville.
Austin, Wong Tan ----------Canton, China.
Bryant, Clarence Avery----------Royston.
Buchwald, Charles----------Athens.
Corley, Otis Herman----------Athens.
Davis, Jefferson Irwin----------Quitman.
Dillard, Edward Carleton----------Arnoldsville.
Gilbert, William Thurston----------Atlanta.
Johnson, James Augustus----------Barwick.
Lloyd, Dewitt Wilson----------Newborn.
Lufburrow, Burleigh Mathew----------Oliver.
Martin, Clarence Ellwood----------Blakely.
Nanney, William Clyde----------Athens.
O'Kelley, Edward Barbara----------Gainesville.
Patman, Everette----------Athens.
Proctor, Lannie Groover----------Atlanta.
Rothe, Henry Heino ----------Athens.
Suddath, Robert O'Neal----------Athens.
Tabor, Paul ----------Danielsville.
Westbrook, Edison Collins----------Gainesville.
Wimberly, Olin John----------Macon.

Junior.

Bassett, Noble Paul----------Ft. Valley.
Birch, George Snider, Jr.----------Macon.
Burrage, Clarence Hill----------Demorest.
Chandler, Farris Carter Tate---------- Commerce.
Davis, Charles Barney----------Tennille.
Davis, Joel Joseph----------Tifton.
Fort, William Ray----------Morrow.

Gunn, John McKenzie---------- Cuthbert.
Hastings, William Raymond---------- Decatur.
Head, Broadus Jennings---------- Gainesville.
Jones, Guy Rudolph---------- Norcross.
Jones, Percival Connally---------- Midville.
Little, Bird ---------- Duluth.
Moss, John Hill---------- Athens.
McConnell, Bright---------- Commerce
Pedrick, Scott Hicks---------- Quitman
Ragsdale, Elmo ---------- Cornelia
Stanley, William Kinnebrew---------- Quitman
Ward, Frank Crawley---------- Lumpkin
Winn, Courtland Simmons---------- Atlanta
Woodall, James Fletcher---------- Woodland
Wright, Homer, Jr.---------- Grantville

Sophomore.

Andrews, Hugh Ector ---------- Milledgeville
Barlow, William Wallace---------- Cochran
Brown, Herman Judson---------- Elberton
Brown, Henry Lowrance---------- Flowery Branch
Burns, William Arnold---------- Commerce
Bush, Newton Gale---------- Barnesville
Campbell, William Theodore---------- Atlanta
Collins, Morris William Hallowell---------- Atlanta
Collins, William Olin---------- Douglasville
Dennis, Joseph Littleton, Jr.---------- Atlanta
Dimmock, Avary Miller---------- Atlanta
Firor, George Henry---------- Athens
Frye, Henry Lee---------- Clarkesville
Gowan, Charles Lee---------- Athens
Hasty, William Dozier---------- Chickamauga
Hill, Pope Russell---------- Toccoa
Lanier, Fleetwood---------- Athens
Malone, Kirby Smith---------- Monticello
Metcalf, Alston Mitchell---------- Athens
Miller, William Paul---------- Columbus
Moon, Steve Clay---------- Athens
Morgan, John Guy---------- Mansfield
McCaskill, Allen Robert---------- Bainbridge
McWhorter, George Ellsworth---------- Brunswick
Nash, Davis Acton---------- Philomath
Nicholson, John Walter---------- Athens
Paddock, David Fleming---------- Brooklyn, N. Y.
Pessin, Louis---------- New York, N. Y.

Purcell, Jones ---------- Lavonia
Purdom, John Mason ---------- Blackshear
Rutherford, William Fred ---------- Union Point
Smith, LaFayette Richmond ---------- Clayton
Sorrells, William Holman ---------- Athens
Veatch, Curry LaFayette ---------- Trion
Walker, Pierre Gautier ---------- Madison
Wilder, Cecil Norton ---------- Pelham
Wiley, Henry Gibbs ---------- Eastanollee

Freshman.

Alexander, Emory Dewitt ---------- LaFayette
Beall, Arthur Charles ---------- Atlanta
Blumenthal, Isadore ---------- Savannah
Braxton, Elliott Meese ---------- Newport News, Va.
Brown, Edgar Chandler ---------- Elberton
Brown, Walter Scott ---------- Mountain Scene
Carey, William Curtis ---------- Bostwick
Coffee, John T. ---------- Eastman
Curtis, William Neel ---------- Athens
David, Frank Columbus ---------- Columbus
Davidson, Francis Florence ---------- Shady Dale
DeLa Perriere, Arthur Leon ---------- Hoschton
Drexel, Eugene Paul ---------- Tifton
Dusenberry, John Calhoun ---------- Savannah
Everett, John Estes ---------- Bullards
Foy, Inman Murphy ---------- Statesboro
George, Edward Tarpley ---------- Morrow
Hall, Orville Duane ---------- Carnesville
Harvey, Harlow Williamson ---------- Athens
Jewett, Howard Cassitt ---------- Macon
Jones, William Clyde ---------- Mansfield
Kemp, George Guy ---------- Marietta
Kemp, Hoyle Newton ---------- Powder Springs
Klugh, Walter G. ---------- Toccoa
Koch, Charles August ---------- New York, N. Y.
Lasseter, Horace Shelby ---------- Athens
Lenhardt, James Blanton ---------- Carnesville
Liles, Brian ---------- Toccoa
Miller, Charles Cox ---------- Richland
Moss, Rufus LaFayette ---------- Athens
McIntyre, William Fraser ---------- Thomasville
Parker, Clyde Lee ---------- Royston
Parrish, Henry Homer ---------- Quitman

Petree, Russell Rano----------Powder Springs
Saye, George Paul----------Tate
Sealy, James Robert----------Edison
Shippen, Frank Truman----------Ellijay
Skelton, Emmett Arnold----------Hartwell
Sullivan, Fred Paul----------Culloden
Towns, George Thomas----------Holguin, Cuba
Tucker, Warren Hubert----------Ocilla
Upshaw, Daniel Hess----------Monroe
Watson, Oscar David----------Loganville
Wingate, Henry Lynnwood----------Camilla
Wingate, William Gordon----------Camilla

SPECIAL.

Brand, Tom Sherman----------Augusta
Campbell, James Philander----------Athens
Collier, Henry Latimer----------Atlanta
Dortch, Willis Reaves----------Kerro, Ark.
Foster, James Holmes----------Monroe
Garnett, Thomas Harwood----------Charlotte C. H., Va.
Johnston, Jack Allen----------Franklin, N. C.
Logan, Harry Brown----------Rome
McCall, Lewis Frederick----------Norfolk, Va.
Lumsden, Jesse Cornelius----------Talbotton
Martin, John Traylor----------Victoria, Tex.
Maddox, Henry T.----------Culloden
Northen, William Jonathan----------Atlanta
Roberts, Jeff Davis----------Summit
Thompson, Chas. Eugene, Jr.----------Atlanta

ONE YEAR.

Adams, George Broadus----------Godfrey
Adams, William Cleveland----------Mansfield
Akin, James William----------Leesburg
Arnold, Walter Daniel----------Philomath
Booker, Leon Harold----------Washington
Bradberry, W. Lee----------Athens
Gaines, Benjamin Franklin----------Hartwell
Holden, Howard Lewis----------Athens
Holmes, Roy Tabor----------Ranger
Hosch, William Hill----------Hoschton
House, Fred Carlton----------Gillsville
Martin, Fred Edgar----------Blakely
Murray, Lewis Milton----------Newnan
McLaws, Uldrick H.----------Savannah

Newsom, Idy Lawson---------- Eatonton
Partee, Ruel Willmoth---------- Rome
Roesel, Theodore Frederick, Jr.---------- Augusta
Watson, Robert Leon---------- Brooklet
Whatley, James Edgar---------- Reynolds

SUMMER COTTON GRADING COURSE.

Andrew, Elijah Wm.---------- Hoschton, Ga., R. F. D. 25.
Baker, Warren Thos.---------- Norman Park, Ga.
Barnett, Harion Hill---------- Washington, Ga.
Burton, John Hudson---------- Athens, Ga.
Cason, Levi---------- Toomsboro, Ga.
Fuller, Wm. M.---------- Winder, Ga., Route 22.
Hodges, Robert Harry---------- Loganville, Ga.
Hodges, Joseph N.---------- Winder, Ga.
Leake, Wm. Jasper---------- Powder Springs, Ga.
Lee, Chas. E.---------- Summerville, Ga.
Lokey, John M.---------- 285 Whitehall St., Atlanta, Ga.
Odom, Robt. B.---------- Moultrie, Ga.
Pandya, H. H.---------- Bhvuager, India.
Staluaker, Walton---------- Broxton, Ga.
Tappan, Edward Lewis---------- Summit, Ga.
Taylor, E. Geo.---------- Moultrie, Ga.
Webb, Wm. G.---------- 595 Waddell St., Athens, Ga.
Young, John L.---------- Canton, China.

SHORT COURSE STUDENTS.

Agee, Geo. Clinton---------- Aonia, Ga., Route No. 1.
Alford, Walter B.---------- Macon, Ga., M. D. & S. R. R.
Barrs, Lonis---------- Quitman, Ga., Route No. 3.
Bennett, Wm. A.---------- Loganville, Ga.
Blumenthal, Isadore---------- Savannah, Ga., 424 Broughton W.
Boland, Marvin G.---------- Americus, Ga.
Bozeman, Oswald A.---------- Shingler, Ga.
Brown, Ernest F.---------- Draketown, Ga.
Burns, John Mitchell ---------- Rome, Ga., Route No. 7.
Cason, Hugh---------- Jewell, Ga.
Cason, Denham---------- Jewell, Ga.
Chestnutt, George Y.---------- Moreland, Ga., Route No. 1.
Coleman, H. A.---------- Alamo, Ga.
Cook, Roy---------- Fairburn, Ga., Route No. 2.
Cox, W. Felton---------- Woodstock, Ga., Route No. 1.
Dailey, Warren Candler---------- Flippen, Ga.
DeLoach, Robert C.---------- Glenville, Ga., Route No. 4.

Dixon, W. N. D.----------Fayetteville, Ga.
Dobbs, W. Frank----------Athens, Ga.
Dunham, G. R.----------Ashburn, Ga.
Ellenwood, Henry M.----------Collins, Ga., Route No. 3.
Fincher, Alice Clark----------Cave Springs, Ga.
Furlow, W. Meriwether----------Clarkesville, Ga.
Griffith, Leonard Lee----------Auburn, Ga., Route No. 1.
Griffith, Chas. L.----------Jasper, Ga., Route No. 1.
Groves, Chester H.----------Cedartown, Ga.
Grubbs, Jas. A.----------Macon, Ga.
Hammond, Andrew ----------Augusta, Ga.
Harbin, George W.----------Cave Springs, Ga.
Harris, Henry B.----------Sparta, Ga., Route No. 3.
Hodgson, Col. F. G.----------Athens, Ga.
Hodgson, Capt. A. C.----------Athens, Ga.
Holland, Milan C.----------Commerce, Ga.
Jennings, Bun Thomas----------Plains, Ga., Route No. 2.
Jolley, Walter B.----------Stilesboro, Ga. Route No. 1.
Jones, Milton L.----------Manassas, Ga., Route No. 2
Jones, Jere Leonard----------Marshallville, Ga., Route No. 1.
Jordan, Wm. J.----------Reidsville, Ga.
Jordan, John D.----------Phinizy, Ga.
Kamey, Niceler----------Hoschton, Ga., Route No. 24.
Kennedy, Remer H.----------Collins, Ga., Route No. 2.
Kennedy, Enoch G.----------Collins, Ga., Route No. 2.
Knight, Martin----------Dacula, Ga., Route No. 1.
Lane, Jas. Dozier----------Gladenville, Ga., Route No. 1.
Leverett, Hulon Pennington----------Monticello, Ga., Route No. 3.
Liddell, Frank----------Cedartown, Ga.
McBrayer, Ben H.----------Temple, Ga.
McElhaney, Blanton E.----------Gladesville, Ga.
McCall, G. Fred----------Manassas, Ga., Route No. 1.
McCall, Frances B.----------Manassas, Ga., Route No. 1.
McGaw, Arthur M.----------Manassas, Ga., Route No. 1.
McPhaul, Lawrence J.----------Doerun, Ga.
McPhaul, Henry Grady----------Poulan, Ga.
McRae, Daniel K.----------Laurinburg, N. C.
Morehead, Beulah ----------Buckhead, Ga., Route No. 2.
Moseley, Sylvester----------Collins, Ga., Route No. 2.
Moss, Mrs. John D.----------Athens, Ga.
O'Grady, Thos. P.----------Tifton, Ga., Route No. 6.
O'Kelley, Fred Watson----------Clermont, Ga., Route No. 1.
Palmer, Wm. C.----------Pelham, Ga., Route No. 3.
Parker, Zeb Vance----------Collins, Ga., Route No. 3.
Payne, Marcus M.----------Pelham, Ga. R. F. D.

Perkins, Extra C.----Spring Place, Ga., Route No. 1.
Polk, Leonidas Lane----Monticello, Ga., Route No. 3.
Rachels, Machen G.----Granite Hill, Ga.
Roesel, T. F.----Athens, Ga.
Roberts, Norton----Georgetown, Ga., Route No. 1.
Russell, Wm. J.----Athens, Ga.
Smith, W. C.----Palmetto, Ga.
Short, John Sullivan----Rayle, Ga.
Smith, Stonewall J.----Gainesville, Ga., Route No. 1.
Smith, Laurin G.----Athens, Ga.
Spence, Aytch----Alpharetta, Ga.
Still, Dennis D.----Loganville, Ga.
Suddath, Boon----Maysville, Ga.
Tootle, Grady----Manassas, Ga., Route No. 1.
Tootle, Bernice----Manassas, Ga., Route No. 1.
Tuck, R. Mel----Loganville, Ga.
Ward, N. P.----Ashburn, Ga.
Wilkes, Lester H.----Manassas, Ga., Route No. 1.
Wilson, Wm. P.----Nicholson, Ga., Route No. 16.
Wilson, Wm. G.----Reeves, Ga.
Wood, Chas. F.----Manassas, Ga., Route No. 1.
Wooten, Thos. Palmer----Tignall, Ga.
Worsham, Hubert Leonidas----Culloden, Ga., Route No. 3.
Young, Emmett McD.----Moreland, Ga., Route No. 1.

DEMONSTRATION AGENTS.

Ballard, R. L.----Ashburn, Ga.
Bennett, William T.----Jefferson, Ga.
Boyett, W. J.----Morris Station, Ga.
Bradford, Wm.----Cedartown, Ga.
Brown, J. B.----McDonough, Ga.
Burdette, J. Luke----Washington, Ga.
Cornelius, W. O.----Cedartown, Ga.
Cown, S. M.----Union City, Ga.
Cox, C. H.----Jasper, Ga.
Cox, C. S.----Forsyth, Ga.
Creel, J. E.----Powder Springs, Ga.
Creel, E. Carl----Valdosta, Ga.
Culpepper, Clarence Boozer----Luthersville, Ga.
Cunningham, G. V.----Tifton, Ga.
Davis, L. C.----LaGrange, Ga.
Davis, B. J.----Taylorsville, Ga.
Eskew, D. B.----Eastanollee, Ga.
Eunice, George B.----Douglas, Ga.
Foster, Chas. LaFayette----Dalton, Ga.
Garrison, Frank D.----Clarksville, Ga.

Griffin, Thos. J.----------Edison, Ga.
Griffin, William Henry----------Nashville, Ga.
Halliday, W. T.----------Lumpkin, Ga.
Harris, Gilford L.----------Fayetteville, Ga.
Harris, Hermon L.----------Energy, Ga.
Hendricks, J. Walter----------Savannah, Ga.
Hunter, R. S.----------Decatur, Ga.
Jackson, E. T.----------Carrollton, Ga.
James, C. M.----------Columbus, Ga.
Kent, Randall Horace----------Bronwood, Ga.
Lewis, William C.----------Wellston, Ga.
Logue, William A.----------Gibson, Ga.
Mathews, James Olin----------Bronwood, Ga.
McMichael, Victor L.----------Putnam, Ga.
McRichardson, S. M.----------Hartwell, Ga.
Middlebrooks, W. G.----------Macon, Ga.
Oliver, Jonas G.----------Macon, Ga.
Parker, Thos. LeRoy----------Alpharetta, Ga.
Partee, Reed Milworth----------Rome, Ga.
Pittman, James T.----------Bainbridge, Ga.
Pitts, David G.----------Bowman, Ga.
Pollhill, J. G.----------Sylvester, Ga.
Rast, W. W.----------Pidcock, Ga.
Rogers, Roy----------Baxley, Ga.
Shedd, J. P.----------Jesup, Ga.
Shirley, Carlos V.----------Alpharetta, Ga.
Smith, Wm. R.----------Fender, Ga.
South, J. W.----------Martin, Ga.
Tucker, W. R.----------Moultrie, Ga.
Tyre, J. B.----------Dublin, Ga.
Ward, P. H.----------Ochlocknee, Ga.
Wicker, David----------Americus, Ga.
Wiley, Thos. B.----------Blackshear, Ga.
Yates, W. W.----------Temple, Ga.

BOYS' SHORT COURSE.

Aldridge, Elzie----------Rockingham, Ga., Route No. 1.
Askew, J. Stewart----------Conyers, Ga., Route No. 2.
Askew, Newton----------Folkston, Ga.
Askew, Leon----------Toccoa, Ga., Route No. 2.
Bailey, Hobert----------Toccoa, Ga., Route No. 2.
Bannister, Claude J.----------Cannon, Ga., Route No. 2.
Barrentine, Frank----------Fitzgerald, Ga., Route No. 2.
Bennett, Mabry----------Jesup, Ga., Route No. 2.
Berry, Clinton----------Fitzgerald, Ga., Route No. 2.

Blankenship, Joe Mac---Douglasville, Ga., Route No. 1.
Blankenship, John---Cedartown, Ga., Route No. 2.
Borders, Jesse A.---LaGrange, Ga., Route No. 1.
Bowdon, Hope---Raleigh, Ga.
Broome, Herbert---Culverton, Ga., Route No. 2.
Brown, Joe---Baxley, Ga., Route No. 2.
Brown, Fred---Kingsland, Ga., Route No. 1.
Buchanan, Carlyle---Americus, Ga., Route No. 5.
Bryant, B. A., Jr.---Cairo, Ga.
Carr, R. D.---Donaldsonville, Ga.
Carroll, Neal---Gresston, Ga.
Chalkey, Millard---Buena Vista, Ga., Route No. 8.
Cleveland, Will Ne ill---Blakely, Ga, Route No. 3,
Clifton, William---Macon, Ga., Route No. 2.
Clough, Dan---Denton, Ga., Route No. 1.
Clough, Osmond---Denton, Ga.
Conger, Geo. D.---Tifton, Ga.
Cornelius, Ward---Homerville, Ga.
Crawford, Winston---Lyerly, Ga., Route No. 2.
Daniels, Joe Brown, Jr.---Woodland, Ga., Route No. 1.
Daniel, A. J.---Ashburn, Ga., Route No. 1
Davis, Jeff---Dublin, Ga., Route No. 5.
Davis, George---Elberton, Ga., Route No. 4.
Davidson, Sam---Gabbettsville, Ga.
Dillard, Grawford---Cusseta, Ga., Route No. 4.
Dorough, Otis---Vienna, Ga., Route No. 3.
Drexler, Alex---Fitzgerald, Ga., Route No. 2.
Durham, Ennis---Bainbridge, Ga.
Ely, Watson---Dickey, Ga., Route No. 1.
Eskew, Walter---Toccoa, Ga., Route No. 2.
Fisher, James, Jr.---Mountain City, Ga., Route No. 1.
Fort, Martin---Lumpkin, Ga.
Gillam, Max ---Cartersville, Ga.
Grandeau, John Axon---Groveland, Ga., Route No. 2.
Green, Stewart---Gray, Ga.
Hall, Lonnie---Athens, Ga., Route No. 5.
Hamrick, Gordon---Talking Rock, Ga.
Hatcher, J. T.---Finleyson, Ga., Route No. 1.
Hinson, Bill---Travisville, Ga.
Hill, Monroe---Oglethorpe, Ga.
Hopkins, Will---Jasper, Ga.
Ingram, P. B.---Fowltown, Ga.
Johnson, Edwin L.---Quitman, Ga.
Jordan, Reuben---Denton, Ga., Route No. 1.
Keene, Hilton---Uvalda, Ga., Route No. 1.

Keown, Dill---LaFayette, Ga., Route No. 2.
Lee, Emory---Jesup, Ga., Route No. 2.
Lemon, Haynes---Ocilla, Ga.
Lucas, J. O.---Quitman, Ga., Route No. 1.
Manning, Roy B.---Funston, Ga.
McCraig, Claude---Monon, Ga.
McCrary, Lester---Thunder, Ga., Route No. 1.
McConnell, Lacie---Adel, Ga.
Meadows, Elliott---Cochran, Ga., Route No. 1.
Meloy, G. W.---Pelham, Ga., Route No. 5.
Miller, Griggs---Bronwood, Ga., Route No. 1.
Moore, Arthur E. ---Nichols, Ga., Route No. 2.
Moxley, Bennie Lee---Louisville, Ga., Route No. 3.
New, Joe ---Lyons, Ga., Route No. 1.
Newton, Ralph---Thomasville, Ga.
Overby, Hugh---Richland, Ga., Route No. 2.
Oxendine, Ramie ---Baxley, Ga.
Palmer, Alex. C.---Pelham, Ga., Route No. 2.
Parker, John---Rockingham, Ga., Route No. 1.
Passmore, Cohen---Hahira, Ga., Route No. 1.
Peeples, Richard---Kingsland, Ga., Route No. 1.
Purvis, Maloy---Fitzgerald, Ga., Route No. 2.
Rabbitsch, Buford---Fitzgerald, Ga., Route No. 2.
Randall, Fay---Elza, Ga.
Rast, W. J.---Pidcock, Ga.
Register, Eugene---Dublin, Ga., Route No. 5.
Robinson, Ennis---Shellman, Ga., Route No. 5.
Rowan, Willie---Nashville, Ga., Route No. 1.
Russom, Horace---Abbeville, Ga., Route No. 1.
Shearer, Shelly---Quitman, Ga.
Simms, Minor ---Ousley, Ga.
Stafford, Harry---Hinesville, Ga., Route No. 1.
Stewart, Sim---Tifton, Ga.
Smith, Luther---Montrose, Ga.
Smith, Slifford---Barge, Ga.
Smith, Ronald---Carrollton, Ga.
Smith, Ulyss---Edison, Ga.
Suttle, Clarence---College Park, Ga., Route No. 1.
Sword, Drew---Fitzgerald, Ga., Route No. 6.
Tomlinson, Anson---Howell, Ga.
Turner, Ellis---Moultrie, Ga., Route No. 3.
Turner, John W.---Rome, Ga., Route No. 2.
Vickers, Harry---Ambrose, Ga.
Walker, Reason---Tifton, Ga., Route No. 1.
Waters, Lee---Blackshear, Ga., Route No. 1.

Webb, Buren----------Hahira, Ga., Route No. 2.
Wellborn, Edward J.----------Madison, Ga., Route No. 4.
White, Paul----------Danielsville, Ga.
Wilcox, John W.----------Wray, Ga.
Wilkinson, Tom J., Jr.----------Gabbettsville, Ga.
Williams, Jas. M.----------Baxley, Ga., Route No. 5.
Yeomans, Ralph----------Elliott, Ga.

GIRLS' SHORT COURSE.

Aderholdt, Clara----------Utopia, Ga.
Arline, Minnidine ----------Climax, Ga.
Blackwell, Mrs. Josie----------Swainsboro, Ga.
Billingsley, Annie L.----------Rome, Ga., Route No. 2.
Bond, Mrs. E. G.---------- ---Columbus, Ga.
Brook, Miss B. V.----------Zebulon, Ga.
Brooks, Ellen----------,------Crawford, Ga.
Broome, Lucile----------Culverton. Ga.,
Chason, Mary----------,----------Ochlocknee, Ga.
Clark, Mrs. T. O. ----------Richland, Ga.
Covington, Pearl----------Cartersville, Ga.
Cox, Ora----------Jasper, Ga.
DeLoach, Mrs. E. T.----------Millen, Ga.
Dixon, Lela----------Fayetteville, Ga.
Dobson, Sallie----------Sugar Valley, Ga.
Dooley, Eron----------Bishop. Ga.
Dowdle, Lois P.----------Rome, Ga.
Dye, Mamie----------Chauncey, Ga.
Findley, Nebraska----------,----------Baxley, Ga.
Forest, Lilla----------Moultrie, Ga.
Freeman, Kate----------Reidsville, Ga.
Henderson, L. H.----------Fitzgerald, Ga.
Moss, Sarah----------Athens, Ga.
McIntyre, Ella----------Valdosta, Ga.
Nelson, Mrs. K. W.----------Oglethorpe, Ga.
Newton, Grace----------Thomasville, Ga.
Paradise, Annie----------Ocilla, Ga.
Perkins, Mary----------Lumpkin, Ga.
Pool, Ella----------Jasper, Ga.
Proctor, Erna----------Clarkesville, Ga.
Richardson, Hettie Lou----------Cannon, Ga.
Ridley, Georgia----------Omega, Ga.
Robinson, Lucile----------Oglethorpe, Ga.
Suddath, Mrs. Robt. O.----------Athens, Ga.
Sullivan, Clyde----------Ousley, Ga.
Weaver, Nellie----------Rome, Ga., Route No. 8.
Wood, Lucy----------Cave Spring, Ga., Route No. 2.

SUMMARY OF REGISTRATION

COLLEGE OF AGRICULTURE.

M. S. in Agriculture	5
B. S. in Agriculture	125
One-year Course	19
Special	15
Short Course	88
Demonstration Agents' Course	54
Summer Cotton Grading Course	18
Corn Club Boys' Short Course	106
Girls' Short Course	37
	467
Counted twice	1
Total registration	466

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